CHOTANAGPUR SURVEY

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CONTENTS

INTRODUCTORY NOTE

This report is based on the findings of the Chotanagpur Project of the Indian Social Institute, New Delhi. These findings were presented and discussed at the All-Chotanagpur Seminar held in October, 1967. The conclusions and recommendations of the Seminar are also part of the report. However, information which was considered confidential has not been included in the following pages, but only in a series of private reports submitted to the agency that sponsored and financed the Project, i.e. *Misereor* or the German Bishops' Campaign against Hunger and Disease. Financial assistance to carry out the Chotanagpur Project was also received through the good offices of Mr. A. Vanistendael, General Secretary of C.I.D.S.E. (International Cooperation for Social and Economic Development).

The team responsible for conducting the research and organizing the Seminar was composed of the following members:

Director :	Francis Ivern, S.J., Ph.D. (Soc. and Pol. Sc.)
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To help in the field research, in the organization of the Seminar, and in conducting studies of particular fields of activity, the following persons were also associated for some time with this team: Sr. M. Ella, S.C.M.M., Shoy Lall, J. Menezes, S. J., M.B.B.S., Xavier S. Raj, George Maliekal, B.Com., James Tigga, M.A. Romanus Tete, B.Sc., Sr. M. Candida, A.C., Eddie Pinto, S.J., D. Larumbe, S.J., J.L. Gorosquieta, S.J., J. Meloo, S.J., Ronald Vaz, B.A., Ernest Ekka. B.A., Sr. M. Adelene and Sr. M. Augusta.

CHAPTER 1

THE CHOTANAGPUR PROJECT

Background

The big task of socio-economic development which India has had to face after independence, can only be met by the mobilization of very large financial and material resources which no private initiative can provide. In these circumstances, national planning becomes an urgent necessity. Plans by themselves, however, do little to actively bring about material progress or development. They are more in the line of national targets to be achieved by the selfless work and dedication of the Indian people, the planners and the "planned" alike. Consequently, it is only the voluntary effort of individuals and groups that can assist these plans in achieving success.

It is in this context, that the work of voluntary agencies becomes relevant to India's national development. While it is true that these institutions command only limited financial and technical resources, and are sometimes involved in their own petty interests losing sight of common goals and objectives, it is equally true that voluntary agencies often provide remarkable examples of efficiency and dedication and, with proper guidance and encouragement, become powerful agents for social and economic change. Moreover, voluntary agencies show how individuals can unite freely and willingly and work together to satisfy — often by dint of much effort and sacrifice — their own material, cultural and spiritual interests, as also those of others. Their work reveals the importance of motivation in achieving desired goals, and this is an aspect which cannot be minimised. Indeed, the need for motivation in India today, to overcome social and economic problems, to improve the health and the living standards of the people, and to slow down the rapid growth in population, must be obvious to all.

In India, the activities of voluntary agencies in the fields of education, health and social development are not a new phenomenon. Through their numerous hospitals, dispensaries, colleges, schools and charitable institutions, private social welfare organizations, as also religious and missionary groups, have done excellent pioneering work, and have rendered very

valuable service to the country. Even socio-economic development, in its more modern connotation, engaged the attention of these bodies in the past. In fact, an outstanding and concrete example of voluntary effort to educate, organize and uplift the rural people is to be seen in the Chotanagpur Credit Cooperative Society, which was started under Christian auspices many years ago. Again, among other things, voluntary agencies, like the Christian Churches, have taught people who have come under their influence, habits of discipline, thrift and hard work: necessary requirements for all true development work.

Today, a variety of factors contribute not merely to increase the involvement of voluntary agencies already in the social field, but also to give them a new orientation. While charity and relief work still continue to play a large and necessary role in voluntary social action, greater importance is now attached to more systematic efforts to remove the roots, rather than the symptoms, of hunger, poverty and disease.

India's Five Year Plans and Community Development Programmes, as also the work of specialized agencies such as the F.A.O., the W.H.O. and UNICEF have all contributed in creating a favourable climate for the increased participation of voluntary organizations in the health and socio-economic development spheres. As far as the Christian Churches are concerned, it is mainly the technical and financial assistance from international voluntary agencies which has made their growing involvement possible.

To a large extent because of this assistance, almost everywhere in India today, the Churches are engaged in a large number and variety of health and socio-economic development projects: minor irrigation schemes, agricultural development and extension programmes, industrial and professional schools, craft and home science training centres, dairy and poultry farms, etc. During the last three years, "food for work programmes" too, have become a powerful means of rural development.

Need for Study and Planning

Today, the active participation of voluntary agencies in health and socio-economic development activities has reached such proportions, that the need for greater study and planning have become imperative. Such a study is considered vital, not merely to increase the viability and efficiency of individual projects, but also to better their impact and demonstration effect over a much larger area and population. In addition, voluntary agencies have themselves increasingly felt the need to utilize their limited resources in a better manner, and to concentrate on some key areas and problems which they are more suited to tackle.

Again, whilst there are many in this country, who admit that voluntary agencies should play a more active role in India's struggle to overcome poverty and disease, there are some who would like to further clarify the

specific contribution these agencies can make in the overall development pattern of the country, particularly in view of their nature and objectives, and of their own conception of man and society.

Need for Coordination and Integration

Further, the health and socio-economic projects sponsored by voluntary agencies need to be conceived not so much as concrete and isolated solutions for individual problems, but rather as part of an overall integrated and systematic effort to fight poverty, hunger and disease, at local, regional and national levels. There is need too, for greater coordination among projects which are often complementary to one another, and which are sometimes even financed and administered by the same or related organizations. Wherever possible, voluntary effort also needs to be integrated with government programmes at different administrative levels. Private agencies are frequently suspicious of government interference and often question whether such coordination is at all desirable, and if so, how it can be concretely achieved, without detriment to their own legitimate autonomy.

The Project

It was with a desire to study and throw light on these and other related questions regarding the role and activities of voluntary agencies that the idea of the Chotanagpur Project was first discussed.

In this first Project, given the time, finances and personnel available, it was decided to concentrate on the activities of the Church in a limited geographic area — Chotanagpur, in the State of Bihar — and in two major fields of activity, viz., health and socio-economic development. The choice of these particular fields did not necessarily imply any pre-conceived judgement as to their value and importance in relation to other Church-related activities, such as general education. In fact, except for a brief survey to assess the social and economic impact of college education on the local population, general education has not been included in our study. The reasons for this have been amply given in Chapter VII of this report.

The studies presented here, of the activities of the Church in the fields of health and socio-economic development, are in the nature of a fact-finding or descriptive survey. Before we can think of conducting a more detailed explanatory analysis, it is necessary to first obtain a clear picture of the importance and nature of the Church's present involvement in these spheres of activity. Though a knowledge of past achievements would undoubtedly help create a better understanding of present activities, only the latter have constituted the direct object of our study.

The project has attempted a first evaluation of Church-related activities not only in themselves, but also in the light of present needs and trends, as also of what others, particularly Government agencies, are already doing

in the same fields. The study of Church activities, therefore, has been preceded by an analysis of present conditions.

In the planning stages of the Project, it was originally decided to study Church activities by means of a first hand survey of present conditions and trends, through a compilation and analysis of material already available. (Secondary sources of information). However, we soon realised that this was not entirely possible. Some of the basic statistical data available on present conditions, and required for our study, were often inaccurate, incomplete or simply non-existent. In the course of our study, therefore, we have been obliged to conduct a series of enquiries either through mailed questionnaires, or through direct field research, to obtain some of the basic data we needed. A concrete example is the census we have made by means of a mailed questionnaire of all government and private health services in the whole of Chotanagpur Division and the Santal Parganas District. Nearly four hundred institutions have been included in this survey. Consequently, this and similar studies we have undertaken, have been fairly time-consuming, but they have provided us with valuable first hand data, enabled us to establish interesting comparisons, and draw some relevant conclusions.

Limits of the Survey

The limits of our survey are already partly apparent from the title we have chosen for this publication: "A Study of the Activities of the Church in the Fields of Health and Socio-Economic Development in Chotanagpur". A definition of these terms will help to further clarify its scope.

1. The Activities

The action of the Church in the fields chosen for our study can be exercised at different levels and can take many forms. There is, for example, the action of the Church at the moral and spiritual level, which is designed to create in men the right social attitudes, by making them aware of the needs and problems of the people around them, by awakening in them an active interest in those problems. Similarly, at the intellectual level, mainly through her educational institutions, the Church can direct men's attention towards problems of social justice, poverty and development, and provide them with norms to judge and evaluate these problems.

In developing countries, the term "education" does not simply mean general education, but education to remove all the obstacles preventing social and economic development. Amongst these are adult education, the education of the elite to guide and inspire the developing country's search for new structures, the education of the masses to make them adopt new attitudes and values to meet the requirements of modern scientific progress and development, public health education, education and training of medical, para-medical and nursing personnel, technical education, etc.

Finally there is also the direct action of the Church to improve prevailing health, social and economic conditions.

While recognizing the importance of these different types of activity, our survey has been concerned only with a) the educational activities directly related to health and social and economic development; b) the direct action of the Church in the health and socio-economic development fields.

2. The Church

The current survey has included all organized activities either directly administered or sponsored or promoted by the Church. By this we mean Church leaders, priests, religious congregations and Christian lay action groups acting either on their own or under the auspices of local Church authorities The survey has not been concerned with isolated socio-economic or health activities by Christians acting merely on their own and in an individual capacity.

At the inception of our Project, only the activities under the auspices of the Roman Catholic Church were selected for a first hand and intensive survey. However, in the course of our study the work undertaken by some other Christian groups has also been analysed. The health survey has included all Christian institutions whether Catholic or otherwise. It is true that in preparing for the All-Chotanagpur Seminar, in which all the Churches working in the region took part, other Christian realizations in the fields of agriculture, industry and social welfare were also studied. However, except in the field of health, by and large, our field research has dwelt mostly with the socio-economic development activities undertaken under Roman Catholic auspices.

3. Health Field

Amongst the activities in the health field, our survey has embraced all the activities directly concerned with the prevention and cure of physical disease and infirmity, the remedy of residual disabilities resulting from disease or injury, and the education and training of medical personnel.

This definition covers hospitals, dispensaries, leprosy centres, mental health institutions, training centres for medical, para-medical, nursing and auxiliary personnel, programmes dealing with environmental sanitation, public health education, training and education in nutrition, maternal and child care, and medical rehabilitation.

4. Socio-economic Development Field

Amongst the activities in the socio-economic development field our survey has attempted to cover all the activities that aim at raising the living standards of the people, by providing them with the necessary means, organizations, education and services conducive to that end. At first, our

survey did not intend to study the charitable works of the Church as such. However, since the dividing line between socio-economic development and charitable activities often proved to be rather thin, data and information were subsequently also collected on all charitable institutions and activities which were relevant to the improvement of the health and socio-economic conditions of the people.

5. Chotanagpur

The Chotanagpur Division — the Southern portion of the State of Bihar — comprises five districts: Ranchi, Hazaribagh, Dhanbad, Singhbhum and Palamau. Besides these, our project has also included the District of Santal Parganas which shares many common characteristics with Chotanagpur. Because of the high percentage of tribal population living here, these six districts constitute what is commonly called Tribal Bihar.

There were many reasons why this particular region has been chosen for our survey. To begin with, located in the heart of India's industrial belt, Chotanagpur is considered a vital region for the country's development and is currently undergoing rapid social change.

Bihar State is itself characterized by a paradoxical and unintegrated condition of its own economy. Existing side by side with some of the richest mineral resources, and the largest industrial complexes in the whole country, is one of the poorest and most backward populations of India. In Bihar, the per capita income, the literacy and educational levels, the yields per acre, size of holdings, power consumption per household and other indices of socio-economic development, still remain below the national averages. In spite of heavy concentration of capital and labour in a few large scale industrial units, Bihar is one of the least industrialized States of India. In the State's economy, Chotanagpur occupies a key position. It is in this region that most of Bihar's mineral and industrial wealth is concentrated. In fact, it has now been recognized that the initial push for the economic growth of the entire state should come from Chotanagpur.

Another important reason for choosing this region for our study was the existence of numerous health and socio-economic betterment projects under church auspices. Though Christianity is of relatively recent origin, it has done pioneering work for the social and economic uplift of the local population.

Particular Aspects Studied

There are limits in any survey as to the amount of information which can be reasonably obtained and adequately analysed. Therefore, besides some general standard data concerning all health and socio-economic activities, some aspects were selected for more detailed study. The choice of these areas of research was made following certain norms or criteria. The latter are not so much working hypothesis to be scientifically tested,

but rather basic and general assumptions that flow from the nature of the Church and of socio-economic development activities. Our survey has had to ascertain whether or not these assumptions apply *de facto* and to what extent, and what were the reasons preventing their application.

The following assumptions have guided the selection of particular areas of research:

1. The Church's main task is of a spiritual nature: the continuation of Christ's work. However, it is only in a world conditioned by social and economic factors that man can fulfil his divine vocation. The Church, therefore, needs to be actively present in the world, to meet man where he is, in his basic needs and preoccupations. As the Second Vatican Council said: "The joys and the hopes, the griefs and the anxieties of the man of this age, especially those who are poor or in any way afflicted, these too are the joys and hopes, the griefs and anxieties of the followers of Christ."[1]

   In a country like India, this implies the active concern of the Church for problems of disease, poverty and development which the country is currently facing. This concern should naturally find expression in socio-economic and health activities.

2. Through her health and socio-economic development activities, the Church does not pretend to put any pressure on man or to achieve her primary spiritual objectives through purely human or material means. But through those activities the Church goes forward to meet man where he is, in a spirit of love and service. Hence the Church's action in these fields, to be sincere and effective, should answer the real problems and needs of the people concerned.

3. Health and socio-economic development work are governed by their own laws and dynamism which should be respected. By the very circumstance of their having been created, all things are endowed with their own stability, truth, goodness, proper laws and order. We cannot sacrifice the nature and function of these things to ends which however good and sublime they may appear to us, were never intended by God.

   In practice this means that our health and socio-economic development activities should not only try to answer real needs, but also use adequate means to satisfy them: planning, competent and qualified personnel, good administration, etc.

4. In India problems are large and complex and Christians are only a tiny minority. The action of the Church in the social field, therefore, cannot be conceived as entirely independent or isolated from

1. Second Vatican Council, Constitution on the Church and the World of Today, p. 1

the efforts of other people or agencies working towards the same or similar ends. The Second Vatican Council has clearly emphasized the basic need for collaborating with other Christians and non-Christians in the common tasks of social and economic development. This implies, whenever possible, coordination and integration of Church activities with those of other agencies, either government or private.

5. Man is not the "object", nor even the "objective" of our development efforts. He is the free and responsible agent, the main protagonist of his own development. The role of outside individuals or agencies is subsidiary. Their main task is to act as catalysts of social and economic change, to help people to help themselves by providing them with all the conditions and services which make their self-realization possible. The free and active participation of the people concerned is an essential part of the development process.

   Direct involvement in the socio-economic development field is the task proper to the laity. As far as possible, therefore, lay men should be encouraged and helped to play an ever growing and responsible role in the social activities of the Church.

6. In social life the individual person's right to be the responsible agent of his own development, finds expression in the free and organized solidarity of individuals to answer common needs. In developing countries like India, the majority of people are not merely poor and ignorant, but often also lack the channels and mechanisms to ensure their just share of social and economic benefits, and their active participation in the social, economic and political life of the group. In these countries, therefore, the voluntary organization of the people themselves to meet their common needs and assure their full integration into social and economic life, becomes something of primary importance.

7. It would be utopic to believe that poor and ignorant people can effectively organize themselves to play a meaningful role in socio-economic development, without a minimum of education and training. Not simply general education, but education which will teach them how to live in the midst of their physical and social environment (basic or fundamental education), how to work (vocational and technical training), and also how to lead others and cooperate with them in solving common problems, (training in social leadership, cooperation, etc.).

   These seven research areas have guided us in drawing up the questionnaires for the study of Church related activities and in evaluating them once the field research was completed.

Action-Oriented Research[1]

The Chotanagpur Project has been an action-oriented or operational research project. One of the main objectives of this study has been not merely to increase our existing knowledge and understanding of Church-related activities, but to provide guidelines for a better and more coordinated *effort in the fields covered by our survey. Our main interest is to assure that* there will be a follow-up to our study.

During the two years that the Project has lasted, therefore, an effort has been made to arouse the interest of responsible local people in the work of *of the research team and gradually prepare them for the action that is to* follow.

Even before the Project was launched, its need was recognised by the community and did not simply stem from the personal interest of the researchers. In fact, some years before a similar study was planned by a local social scientist well acquainted with the Church's work and the conditions and needs of the region. The lack of qualified personnel and other difficulties prevented its realization.

The Church leaders involved have, for some time now, been deeply aware of the need for reassessing the Church's role and activities in view of rapidly changing conditions and current theological thinking. The area covered by our Project comes under the ecclesiastical jurisdiction of four Roman Catholic Dioceses. All the four Bishops have strongly endorsed and encouraged this study.

Before the Project was actually planned, its Director already had some acquaintance of the region and the community, having lived there for one and half years. Himself, a member of a religious congregation which directs many of the socio-economic projects in the area, he was able to sound the community and establish its preparedness

Several members of the community actively helped the research team find an appropriate office and housed them in a men's hostel till proper arrangements were made. They recommended qualified persons from the local community to be employed by the Project. The readiness of the community was amply confirmed once the project was started. Several local leaders made suggestions and discussed, with the research team, problems of the area and the difficulties they encountered in solving them. At the beginning a few were somewhat critical and suspicious, but no one was hostile. When the time for field research and interviewing arrived, almost ninety-nine per cent of the interviewees cooperated in giving information to our research officers, and assisted them in every possible way to make their work a success.

1. Dr. Jessie Tellis Nayak, *Action Research and the Chotanagpur Project. A Case Study of the Application of Principles of Action Research.* Roshni Samaj, Vol. 2. 1967, pp. 48-58.

Invitations to the research staff to address various local groups and organizations were also indications of the community's readiness, and acceptance of the study team, and of the importance attached to the Project.

Every month from the time the study commenced, a newsletter has been sent to about 400 local leaders, project sponsors and heads of institutions informing them about the progress of our study and its preliminary findings. "Open houses" have also been held in the Project Office, to which over two hundred local leaders have been invited to acquaint them with the study and members of the research team, and to provide them with an opportunity to raise questions. Also, in the course of field trips, research officers have been encouraged to speak to lay and religious groups about the project and to answer their questions.

Finally, to prepare the ground for more efficient and coordinated action based on the survey findings, a six day working seminar at Ranchi brought together about 150 people representing the different Churches working in the Chotanagpur and Santal Parganas region. High government officials were also invited. This seminar was carefully planned and organized and proved to be highly successful. Its conclusions and recommendations were widely circulated. One of the most important proposals made in the Seminar regarded the setting up of a local coordinating body comprising the different Christian communities which took part in it. This proposal is now being implemented. The nature, structure and functions of this body are given in Chapter VIII of this book.

Project Time-table

The Chotanagpur Project lasted from March 15, 1966, until March 15, 1968. After briefing the research team on the nature and scope of the project, the first months were spent studying general conditions and trends in the region. This was mostly done — as we have already indicated— through a compilation and analysis of existing data and studies. At this time also a quick first-hand survey was undertaken of all public and private agencies, educational and training institutions active in the fields of health, social and economic development. Frequent trips to the various districts were undertaken to enable the Project Staff to get first-hand knowledge of the region and its problems, and the efforts being made both by Government and voluntary agencies to solve them.

A basic questionnaire, was constructed taking into account the particular aspects to be studied. On this model, the questionnaire schedules for the study of Church-related activities were then finalized. There were four different questionnaires for the study of the main types of activities: direct socio-economic betterment projects, educational and training centres, social welfare programmes and health schemes. Two samples of these questionnaires have been included in the General Appendices given at the end of this book. In the months of June and July, 1966, the questionnaire schedules were pre-tested and revised. In September the research team was intensively

briefed on the structure and contents of the questionnaires and on how to administer them.

Besides the four main questionnaires, all the officers were also provided with a "Researcher's *Tool Kit*" containing ten other documents designed to gather additional information on general demographic, social, economic, health and sanitary conditions. A random sample survey was also conducted to assess the knowledge and attitude of the Catholic population towards responsible parenthood and family planning. Since the main questionnaires were to be administered only to project sponsors and administrators, brief interview guidelines were designed to ascertain the point of view and reactions of the beneficiaries of Church related activities. In Parishes where there were few or no projects in the fields under study, the reasons for this were analysed and the possibilities for future projects explored.

Meanwhile all the places and institutions to be visited by the research team were contacted, informed about the nature and purpose of the study, and asked to provide all possible assistance to our Research Officers. During the months of October and November, 1966, the actual field research was carried out. Nearly eighty parish centres in the six districts covered by the project were visited. In each centre our Research Officers spent from a minimum of two to a maximum of four days. At the end of October all Research Officers were asked to report back to headquarters for an exchange of views and a couple of days rest before leaving again for the second and final phase of the research. The field trips proved to be quite strenuous. Many of the Officers had to visit far-away and isolated places and often travel by cycle or sometimes even on foot. However, everywhere they went, they found people quite receptive and willing to collaborate.

Once the field research was over, the work of editing the questionnaires, coding and tabulating the findings was begun. It went on for several months. While this was done, several studies were undertaken to complement our data on agricultural, industrial and health conditions.

In February 1967, plans to hold the All-Chotanagpur Seminar on the role of the Churches in the fields of health and socio-economic development were discussed with local leaders. In March, a Seminar Consultation meeting was held in Ranchi, and attended by representatives of the different Churches working in Chotanagpur. The idea of the Seminar was very favourably received. An Organizing Committee was set up and preparations for the Seminar began in earnest. From March until October, 1967, when the Seminar took place, most of the Officers were busy either in the organization of the Seminar or in the preparation of the Seminar's background papers based on the survey findings.

During all this time, however, research work still continued in several fields. In addition, a large number of evaluation reports on individual projects were also prepared and sent to the agencies which had financed them

and also sponsored and financed the Project. These documents are of a confidential nature and contain data and information not to be found in the present report.

After the All-Chotanagpur Seminar, from November 1967 until March 15, 1968 the final report has been prepared, and concrete steps have been taken to ensure that there will be a follow-up to the Project.

CHAPTER II

THE PEOPLE OF CHOTANAGPUR

The people of tribal Bihar, Chotanagpur and Santal Parganas, share a common geography and a common history. Before 1947 it had been the British policy to segregate the tribal people and keep them socially isolated. After Independence the tribal communities were assured social, cultural and political freedom.

Before introducing the various classes of people inhabiting the region, and presenting the results of our survey in this report, we consider an understanding of the demographic conditions prevailing in Bihar and Chotanagpur essential.

I. DEMOGRAPHIC CHARACTERISTICS

1. High Density

In 1961, Bihar had a population of 46 4 millions. Given it's annual rate of population growth from 1951 to 1961 (1.98%), Bihar has today an estimated population of over 51 millions. In 1961, inhad the second largest population in India next to Uttar Pradesh.

Though Bihar constitutes only 5.70% of the total area of India, it has 10.74% of her population. Bihar's population density of 694 persons per sq. mile is much higher than the all India average of 373 per sq. mile. Leaving aside the Union Territories and other smaller independent areas, Bihar has the highest density after Kerala (1,127) and West Bengal (1,032) and is closely followed by Madras (669) and Uttar Pradesh (649).

2. Uneven Distribution

Within the State itself, the population is, however, unevenly distributed. North Bihar comprising the Patna, Tirhut and Bhagalpur Divisions and with an area of 41,903 sq. miles or 62% of the total State area, had in 1961 a population of 37.5 millions or 81% of the total population of Bihar.

Chotanagpur Division, in Southern Bihar, with an area of 25,293 sq. miles or 38% of the total State area, had a population of 8.9 millions or only 19% of Bihar's overall population.

In 1961 the Chotanagpur Division and the Santal Parganas District, had a population of over 11.6 millions, or only 25% of the State population, though its area was 46% of the total State area. Southern Bihar, therefore, was more thinly populated than the Northern region. Its population density of 378 (Chotanagpur Division and Santal Parganas) is presently very close to the national average of 373. Even the highly industrialised district of Dhanbad in the tribal belt with its density of 1045 per sq. mile, does not attain the high population densities found in Districts of North Bihar such as Patna, Saran, Muzaffarpur and Darbhanga. Table I of the appendices gives an idea of the area and population, as also of densities, in the different divisions and districts of the State, as in 1961.

In accordance with all expectations, the highest concentrations of population in Tribal Bihar are to be found in the urban and industrial centres of Jamshedpur (10,756 per sq. mile), in the Ranchi-Doranda areas (9,113 per sq. mile), and in the Dhanbad-Jharia-Sindri town groups. The highest rural densities are in Santal Parganas District, particularly in the regions bordering West Bengal and on the banks of the Ganges. The lowest rural densities are encountered in the heavily forested areas of Palamau.

Southern Bihar, therefore, in spite of being in the heart of India's industrial belt, and possessing some of the largest mining and industrial complexes in the country, is of a relatively low population density, revealing its still predominantly rural character.

3. Low Degree of Urbanization

Of Bihar's population only 8.43% live in urban centres. This is much below the Indian average of 17.97 in 1961. Though Bihar has over 10% of India's population, it has only 5.14% of the country's urban population. Excluding Union Territories and other smaller independent areas, Bihar has one of the lowest proportions of urban to total population. Of 15 Indian States, only two are less urbanized than Bihar, i.e. Assam (7.69%) and Orissa (6.32%). However, during the last decade, Bihar's urban population has been increasing more rapidly than in the whole of India: 49.03% for Bihar as against 26.22% for India. Only two States show a higher percentage increase in their urban populations during the same decade: Assam and Orissa. It is true to say, therefore, as regards the urbanization of these predominantly rural regions, that progress is faster the more recently it occurs. This, however, does not apply to India as a whole. The 1961 Census reveals a rate of urbanization for the decade 1951-61 lower than in the past and only slightly above the rate of population growth.

Within Bihar the degree of urbanization also varies from region to region. Chotanagpur (including Santal Parganas) is more urbanized than the rest

of the State: 13.33% of urban population as against only 8.43% for Bihar as a whole. This is mainly because of the large industrial centres of Jamshedpur, Dhanbad and Ranchi. In Dhanbad over 25% of the population is urban, in Jamshedpur over 21%. The heavy urban concentration in the Ranchi-Doranda town group is partly balanced by the predominantly rural character of the rest of the district.

The least urbanized districts in Tribal Bihar are Santal Parganas and Palamau, as is apparent from the following Table giving rural-ruban distribution of urban to total population, India, Bihar and Chotanagpur on a percentage basis as in 1961.

India	17.97
Bihar	8.43
Chotanagpur (with Santal Parganas)	13.33
Ranchi	9.47
Hazaribagh	8.40
Palamau	4.73
Santal Parganas	5.34
Dhanbad	25.02
Singhbhum	21.50

4. Moderate Rate of Population Growth

During the last decade about 12 million more people have been annually added to the country's large population. This implies an annual increase of over 2%. The rate of growth of India's population has accelerated rapidly *since 1921. This year is known as the "big divide" because it marks a* very pronounced change in population trends. However, compared with other developing countries e.g. South America, India's population growth is moderate, and its present population increase may be attributed not so much to its high birth rate, but mainly to its rapidly declining death rate.

How does Bihar's population growth compare with that of India? During the last 60 years, Bihar's population has been increasing at a lower rate than in India. However, like the rest of India, 1921 also marks a steep rise in the population of Bihar.

During the 1951-61 decade Bihar's rate of increase of 19.78% was below India's average of 21·5%. Bihar was one of the slowest growing States. Only the States of Uttar Pradesh, Madras and Jammu-Kashmir registered a population increase lower than Bihar. This is apparent from the figures given in Table II of the appendices attached.

5. Lower population growth in Tribal Areas

During the 1951-61 decade, all the Divisions of Bihar, except Bhagalpur, increased at a lower rate than India. Chotanagpur Division showed a rate of increase of 21.10% close to the national average of 21.50%. However,

Chotanagpur Division, in Southern Bihar, with an area of 25,293 sq. miles or 38% of the total State area, had a population of 8.9 millions or only 19% of Bihar's overall population.

In 1961 the Chotanagpur Division and the Santal Parganas District, had a population of over 11.6 millions, or only 25% of the State population, though its area was 46% of the total State area. Southern Bihar, therefore, was more thinly populated than the Northern region. Its population density of 378 (Chotanagpur Division and Santal Parganas) is presently very close to the national average of 373. Even the highly industrialised district of Dhanbad in the tribal belt with its density of 1045 per sq. mile, does not attain the high population densities found in Districts of North Bihar such as Patna, Saran, Muzaffarpur and Darbhanga. Table I of the appendices gives an idea of the area and population, as also of densities, in the different divisions and districts of the State, as in 1961.

In accordance with all expectations, the highest concentrations of population in Tribal Bihar are to be found in the urban and industrial centres of Jamshedpur (10,756 per sq. mile), in the Ranchi-Doranda areas (9,113 per sq. mile), and in the Dhanbad-Jharia-Sindri town groups. The highest rural densities are in Santal Parganas District, particularly in the regions bordering West Bengal and on the banks of the Ganges. The lowest rural densities are encountered in the heavily forested areas of Palamau.

Southern Bihar, therefore, in spite of being in the heart of India's industrial belt, and possessing some of the largest mining and industrial complexes in the country, is of a relatively low population density, revealing its still predominantly rural character.

3. Low Degree of Urbanization

Of Bihar's population only 8.43% live in urban centres. This is much below the Indian average of 17.97 in 1961. Though Bihar has over 10% of India's population, it has only 5.14% of the country's urban population. Excluding Union Territories and other smaller independent areas, Bihar has one of the lowest proportions of urban to total population. Of 15 Indian States, only two are less urbanized than Bihar, i.e. Assam (7.69%) nd Orissa (6.32%). However, during the last decade, Bihar's urban lation has been increasing more rapidly than in the whole of India: .03% for Bihar as against 26.22% for India. Only two States show a 'gher percentage increase in their urban populations during the same decade: Assam and Orissa. It is true to say, therefore, as regards the urbanization of these predominantly rural regions, that progress is faster the more recently it occurs. This, however, does not apply to India as a whole. The 1961 Census reveals a rate of urbanization for the decade 1951-61 lower than in the past and only slightly above the rate of population growth.

Within Bihar the degree of urbanization also varies from region to region. Chotanagpur (including Santal Parganas) is more urbanized than the rest

of the State: 13.33% of urban population as against only 8.43% for Bih as a whole. This is mainly because of the large industrial centres Jamshedpur, Dhanbad and Ranchi. In Dhanbad over 25% of the pop lation is urban, in Jamshedpur over 21%. The heavy urban concentrati in the Ranchi-Doranda town group is partly balanced by the predominan rural character of the rest of the district.

The least urbanized districts in Tribal Bihar are Santal Parganas a Palamau, as is apparent from the following Table giving rural-ruban dist bution of urban to total population, India, Bihar and Chotanagpur on percentage basis as in 1961.

India	17.97
Bihar	8.43
Chotanagpur (with Santal Parganas)	13.33
Ranchi	9.47
Hazaribagh	8.40
Palamau	4.73
Santal Parganas	5.34
Dhanbad	25.02
Singhbhum	21.50

4. Moderate Rate of Population Growth

During the last decade about 12 million more people have been annual added to the country's large population. This implies an annual increase over 2%. The rate of growth of India's population has accelerated rapid since 1921. This year is known as the "big divide" because it marks very pronounced change in population trends. However, compared wi other developing countries e.g. South America, India's population grow is moderate, and its present population increase may be attributed not much to its high birth rate, but mainly to its rapidly declining death rate.

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the context of the natural growth of its population. The same, howeve does not necessarily hold good at the State level where internal migratio can, at times, have a considerable impact on population trends.

Natural growth depends on birth and death rates. In India birth rate have decreased only very slightly during the last fifty years; from over 5 per thousand at the end of last century to over 40 per thousand in 1961, i.e a 20% decrease. Death rates, on the contrary, have sharply decreased fror over 40 per thousand at the beginning of the century to only slightly ove 20 per thousand, i.e. a 50% decrease, in 1961. Despite a prevalent hig infant mortality rate, the expectation of life at birth has kept on increasing Today it is estimated to be 50 years, both for males and females.

Bihar had a slightly higher birth rate than for India as a whole: 43.4 pe thousand as against 41.7 per thousand for India in 1961. This higher birt rate can be partly explained by the fact that the State registers a relativel high proportion of married women in the reproductive age period (40.3% in 1951) and also that, in Bihar, people marry at a younger age than in Indi as a whole. In 1961, in Bihar and Orissa, the mean age of marriage wa 14.81 for women and 19.55 for men. The respective figures for India wer 15.83 and 21.59 . Only in Madhya Pradesh, Uttar Pradesh and Rajastha do people marry at a lower age than in Bihar. This is apparent fror the following figures:[1]

	Male	*Female*
Assam	25.73	18.54
West Bengal	24.18	15.86
Bihar & Orissa	19.55	14.81
Maharashtra	22.42	15.74
Hyderabad	22.21	15.26
Madhya Pradesh	18.37	13.87
Madras	25.15	18.14
Mysore	22.44	16.33
Punjab	21.73	17.46
Rajasthan	19.09	14.22
Uttar Pradesh	18.75	14.43
Kerala	26.33	19.97
INDIA	21.59	15.83

In spite of the Sarda Act, in 1951 over one million girls married in Biha

1. Agarwala, S.N. Age at Marriage in India, 1963.

between the ages of 5 and 14. The districts where child marriages were more prevalent were Monghyr, Santal Parganas and Darbhanga. Child marriages were lowest in Singhbhum. As in India, also in Bihar, Christians marry at a later age than other religious communities. In 1951, the average size of the family in Bihar was 5.18.

Bihar's higher birth rate, however, has been more than compensated by its higher death rate: 26.1 per thousand as against 22.8 per thousand for India. This explains the lower rate of population growth of the State compared with that of India. However, in some regions of Bihar the as compared or "in" comparison migratory movement of population further contributes to lower its overall population growth.

8. **Out-migrants outnumber In-migrants**

Though usually the Indian census contains data on place of birth of the population, it is difficult to assess accurately the volume and "direction" of internal migration among different States and among different districts within a State. Frequent changes of State boundaries, different methods of counting migrants and social customs (such as wives returning to their parents' home for their first confinement) all contribute to make any study of internal migration a difficult task.

Bihar is a "losing" State as far as migration goes, since more people move out of the State than come in to it. From 1901 to 1931, Bihar and Orissa lost about 593,000 people because of migration. This trend continued during the following decades, 1941-51, and 1951-1961. In Uttar Pradesh, Madras, Rajasthan, Hyderabad, Punjab and Jammu and Kashmir the number of out-migrants too exceeded that of in-migrants.

In 1961, about 8% of Bihar's population had been born in India, but outside the State. Most of the people who migrated to Bihar were women who came from the neighbouring States of Uttar Pradesh, West Bengal, Orissa and Madhya Pradesh. In-migration had a more permanent character than out-migration which was composed mostly of men, and was often of a seasonal or temporary nature. Most of Bihar's out-migrants went to West Bengal and Assam.

In 1961, in Chotanagpur and Santal Parganas, the Districts with the highest proportion of in-migrants from other Indian States were Dhanbad with 22% and Singhbhum with 19%, of the total population: These are, presently, also the most rapidly growing districts in Chotanagpur.

The lowest proportions were in Palamau (5%) and Santal Parganas (6%) which were among the slowest growing districts. The following table gives an idea of the population born in India but outside the State of Bihar by Districts, in absolute numbers and in percentage of total population (1961), for Chotanagpur and the Santal Parganas.

Population Born in India but outside the State of Bihar by Districts, in Absolute Numbers and in Percentage of Total Population (1961) for Chotanagpur and the Santal Parganas.[1]

	Total Population	*Born Outside State*	*% of Total*
Ranchi	2,138,565	195,332	9
Hazaribagh	2,396,411	182,299	8
Palamau	1,187,789	54,476	5
Dhanbad	1,158,610	264,176	19
Singhbhum	2,049,911	406,185	22
Santal Parganas	2,675,203	149,786	6
Total	11,606,489		

The population of Chotanagpur, therefore, grows faster than that of Bihar as a whole, mainly because of the influx of people to the new and rapidly developing industrial and urban centres. However, Chotanagpur's rate of growth still remains below the all-India average. In the rural areas, which are also predominantly tribal, population grows at a lower rate. The main reason for this is to be found in the underdeveloped condition of Chotanagpur's agricultural economy. Heavy population pressure on the land is responsible for a migratory movement of tribal people to the tea estates of Assam and North Bengal, to the Andaman islands and also to Calcutta and other urban and industrial centres in search of subsidiary employment.

9. Low Literacy Levels

In the 1961 census, for a person to be considered literate it was not enough to know how to read and write, but in addition, to have passed a written examination as a proof of educational standard.

Bihar's literacy rate of 18.4% was lower than the national average of 24.0%. Out of 26 States and other Union Territories, Bihar ranked 15th as far as literacy was concerned. The rate of increase in the level of literacy from 1951 to 1961 was about the same for Bihar as for India as a whole. As expected, the highest levels of literacy were found in urban and industrial centres such as Patna, Dhanbad and Singhbhum. Nine of Bihar's districts, currently have lower levels of literacy than the State average. Three of these are in Tribal Bihar: Santal Parganas (14.6%), Palamau (13.6%) and Hazaribagh (14.5%). Palamau and Saharsa Districts record the lowest female literacy rates (4.1%) in Bihar. They are closely followed by Hazaribagh (4.5%) and Santal Parganas (5%).

The literacy rate of Chotanagpur (17.8%) Division is slightly lower than that of Bihar (18.4%). Within Chotanagpur itself, the highest rates of

1. Census, 1961.

The latter, viz., the Oraons, Mal Paharias, Sauria Paharias and their sub-families are Dravidians both racially and linguistically. They have migrated from the Deccan Plateau in Central India.

These races called "Adivasis", were the original settlers of the Chotanagpur Plateau. There is good reason in believing that these tribes migrated to this region at an early period moving from the Ganges Valley and the Sone River through Palamau. They displaced earlier races of which little traces are left today. It was only after the sixteenth century that the non-tribal people, who were either invaders or traders, found their way into Chotanagpur.

Of the Adivasis, the Santals, Hos, Mundas, Oraons and Kharias are the most predominant tribes.

1. The Santals:

The Santals are the largest of the Scheduled Tribes of Bihar. They constitute 36.7% of the total tribal population. In Bihar, the district of Santal Parganas has been named after them and more than half (56.9%) of the Santal Population lives there. In fact four-fifths (82.3%) of the Santals live in the Districts of Santal Parganas, Hazaribagh and Singhbhum.

The Santals are one of the most numerous among the Scheduled Tribes of Chotanagpur and Santal Parganas. They number nearly 1,255,000, constituting 31.9% of the tribal population of the region and 10.8% of the total population. They form the major tribal group in the Districts of Santal Parganas, Hazaribagh and Dhanbad. Compared to the total tribal population in these districts, their percentage varies from 65% to 85%. They constitute 26.6% of the total district population in Santal Parganas, 9.70% in Singhbhum, 9.32% in Dhanbad and 7.30% in Hazaribagh. In Palamau, the Santals number a little over two thousand persons. In Ranchi there are less than a thousand. Their distribution throughout the State, may be gauged from Table IV of the appendices attached to this Chapter.

In the Santal Parganas, Santals are mainly concentrated in Dumka Anchal, and constitute nearly 73% of the Anchal's population. In Kathikund and Amrapara Anchals their ratio varies from 67% to 69%. In Hazaribagh District they are more numerous in Pirtanr, Jaridih and Gande Anchals. In these anchals their percentages range from 31% to 42%. In Singhbhum District, they are more concentrated in Mosabani, Chakulia and Ghatsila Anchals, their percentage varying from 31% to 44%.

The anchal-wise percentage distribution of tribes and castes for Dhanbad District is not available. However, it seems that the greatest concentration of Scheduled Tribes is in the Tundi Anchal, where they comprise 49.98% of the population. Gobindpur Anchal follows next with 19.77%. The proportion is lowest in Dhanbad-cum-Kenduadih-cum-Jagta Anchal (3.45%).

2. The Mundas:

Next to the Santals, the Mundas are the second largest tribe. They constitute 15.67% of the total population of the area under study. Moreover, they form an equal ratio in proportion to the total tribal population of the region.

This tribe is predominantly found in Ranchi and Singhbhum Districts (74.0% and 18.0% respectively). In Hazaribagh and Palamau their concentration varies from 2% to 5%. In Dhanbad and Santal Parganas Districts, they constitute less than 1% of the district population. Figures giving district-wise distribution of Mundas, throughout the tribal belt, are given in Table V of the attached appendices.

In Ranchi District, they are found chiefly in the Khunti sub-division. Here they are heavily concentrated in Murhu Anchal, where they represent 86.36% of the total population. They represent 85.10% of the total population of Tamar Anchal II, 66.19% of Torpa and 60.37% of Khunti Anchal.

In Singhbhum District, the Mundas constitute nearly 74% of the total population of the Kuchai Anchal (Saraikela Subdivision). Manoharpur Anchal has the second highest Munda population (4.39%). In the other anchals, the Mundas vary anywhere from 11% to 25%.

In Hazaribagh, they are confined to the Patratu Anchal of the Sadar Sub-division. Here they represent 8.45% of the Anchal's total population. In the Ramgarh Anchal, the Mundas are about 5.67%.

The Munda tribe numbers nearly eight thousand persons in Palamau District. *In the Chandwa Anchal they constitute 28.5% of the total population*, and in Mahuadanr approximately 11.2%.

3. The Hos:

The Hos constitute 10.8% of the tribal population of Bihar, but unlike larger tribes, they are almost exclusively confined to the district of Singhbhum, which contains 99.8% of them.

They are the third biggest tribe on the Chotanagpur Plateau, and they total about 434,000 individuals, comprising 11.0% of the total population of the region. They represent 11.02% of the tribal population.

The district of Singhbhum alone has 434,000 Hos, and they form 21.22% of the total district population. In comparison to the tribal population, they constitute 43.30%. This is clearly shown in Table VI of the appendices.

The Hos are concentrated in Chaibasa sub-division, especially in Majhgaon, Jhinkpani and Manjhari Anchals. In these anchals they constitute

73.8%, 73.4% and 69.0% of the total population respectively. In the othe anchals of this district they form less than 30% of the total population.

4. The Oraons:

The Oraon population is less than half of the Santals, constituting 17.5% of the tribal population of Bihar. The Oraons are largely concentrated i Ranchi District (76.8%) and are found in significant numbers in Palama District (11.4%) too.

In Chotanagpur, the Oraons number about 554,000. They are sparsel scattered in the districts of Singhbhum, Santal Parganas, Hazaribagh an Dhanbad. They account for 14.51% of the total population of Chotanagpu and the Santal Parganas District. Compared to the tribal population of thi region, they constitute 11.50% of the total.

In Ranchi district, they are mainly confined to the Sadar and Guml Sub-divisions. In the Ghamaria Anchal of the Sadar Sub-division, 59.52% of the population are Oraons. Lohardaga has 55.73%; Bero 51.78% Kisko 44.82% and Kuru 44.73%.

In the Gumla Sub-division, they are more concentrated in Dumri an Chainpur Anchals, where they constitute nearly 66.6% of the total population of these areas. These are followed by Ghagra Anchal (65.38%) Sisai (55.95%); Bishunpur (55.55%); Gumla (42.85%); and Raidi (43.58%).

The Oraons form less than 40% of the total population in the othe anchals of Ranchi District.

There are more or less eighty thousand Oraons in Palamau District, o 6.73% of the total district population. They are mostly concentrated i Mahuadanr, Garu and Chandwa Anchals of Latehar Sub-division. In thes anchals, they represent respectively 43.75%, 36.36% and 25.71% of th total anchal population. In Bhandoria anchal 26.31% of the total populatio are Oraons. In the remaining anchals they constitute less than 25% of th total population.

Hazaribagh District has about 14,000 Oraons. Only 9 anchals in thi district have more than a thousand Oraons. Out of the total population o Tanwa Anchal (Sadar Sub-division) 2.9% are Oraons. In the remaining 8 anchals of this district the percentage of Oraon population varies from 1% to 5%.

There are very few Oraons in the Santal Parganas or in Dhanbad District. They number about three thousand altogether in Santal Parganas and less than a thousand in Dhanbad District. Table VII of our appendices gives the district-wise distribution of this particular tribe over the entire region covered by our survey.

Only two anchals have more than 1,000 Oraons. These are Merema Anchal in Godda Sub-Division and Rajmahal Anchal in Rajmahal Sub-Division. In the former anchal, they constitute 2.46% of the total population and, in the latter they are 1.06%.

5. The Kharias:

There are approximately 100,000 Kharias in the State of Bihar. They comprise less than a half per cent of the total population. In the tribal belt of Chotanagpur and Santal Parganas, there are approximately 99,000 Kharias, or 0.85% of the area's population. Among the Scheduled Tribes they constitute 2.51% of the total.

The Kharias are chiefly found in Ranchi and Singhbhum Districts Over eighty eight percent (88.1%) of them are found in Ranchi district. There are about 9,000 Kharias in Singhbhum District (0.43% of the total population). In this district they constitute 'less than one percent (.92%). of the Scheduled Tribes. Table VIII of the appendices gives a fair idea of the district-wise distribution of this particular tribe.

In Ranchi District, the Kharias are concentrated in the Bolba Anchal of the Simdega Sub-Division. In this anchal they are 43.75% of the anchal's total population. Kharias are also found in Thethaitanagar Anchal (31.25%), Simdega Anchal (24.28%) and Kolebira Anchal (12.19%) of this subdivision. In Gumla subdivision they are mostly encountered in Palkot (25.58%), Basia (19.51%), Konbir (12.82%), and Raidih (10.25%), anchals. There are very few Kharias in the Sadar Sub-division, and they vary from 1 to 4% in Sisai, Khijri and Mandar Anchals. There are some Kharias to be found in the Khunti Sub-division. Of all, the Simdega sub-division reveals the highest Kharia population.

Summary of Scheduled Tribes:

The Oraons, Mundas and Kharias are mainly confined to Ranchi District, the Santals to Santal Parganas, and the Hos to Singhbhum District. The Mundas, Kharias, Santals and Hos have close linguistic affinities. Among the less significant Scheduled tribes are the Kharwars, Bhumijs, Lohras, Sauria Paharias, Mal Paharias, Binjhias, Cheros, Parhaiyas, Kisans, Korwas and Birhors. The Kharwars are located chiefly in Palamau District. They are also sparsely distributed in the Santal Parganas, Singhbhum and Ranchi Districts. The Bhumij tribe is found in Singhbhum. Over ninety seven percent (97.5%) of the total Bhumij population of Bihar live in this District. The Lohras are confined to the Chotanagpur Plateau and to Purnea District. Ranchi district has the highest number of Lohras followed by Singhbhum District.

The Sauria Paharias and the Mal Paharias are believed to be branches of a parent tribe, Paharia, which split up during the last two or three centuries. Both are almost exclusively to be encountered in the Santal Par-

whose numbers consequently, have gone on increasing in Tribal Bihar. Table X of the appendices attached to this Chapter gives an indication of percentages of population by religious groups, Hindus, Muslims, Christians, Tribals and others for 1901-1961 in the districts of Chotanagpur and Santal Parganas.

Again, according to the Census of 1961, of the 502,195 Christians recorded in Bihar, 483,297 or 96.25% were to be found in the Chotanagpur Division and the Santal Parganas District. 378,719 Christians were shown as belonging to Ranchi District alone.

Of the total number of Christians mentioned in the census, approximately about 475,000 are likely tribal Christians (close to 95%). The balance 5% are made up of the small Bettiah community (Champaran District), a few thousand Chamar and other Scheduled Caste Christians of North Bihar, immigrants from all over India (Anglo-Indians, Tamilians, Malayalis, etc.) to the industrial areas, and a very few caste Hindu converts.

2. The Christian Churches

The Christian Churches in Chotanagpur and the Santal Parganas together claim more members than the Census indicates. According to the figures given in the 1931 census, of the 341,894 Christians recorded in Bihar (88% tribal), Catholics (R.C.) constituted 163,902, Protestants of different groups 154,458, while the balance 23,534 did not specify their denomination. In Ranchi District alone, 145,233 people were recorded as Catholics and 117,375 people as Protestants. Since 1931, no separate accounts have been maintained of Catholics and other Christians in the official government census. Consequently, it is extremely difficult to estimate the real strength of the various Christian groups existing on the plateau. In the first place, the structure and the criteria of membership of the various groups are different; secondly, the statistics available are in respect of the total number of Churches at work over a widely dispersed territory and they are not, therefore, detailed by districts. Only the Catholic and the Lutheran Churches make comprehensive and detailed statistics, regarding their memberships, satisfactorily available.

The first Christian Missionaries, in the tribal areas of Bihar, consisted of four Lutheran Pastors sent to India in 1845, by the Rev. J.S. Gossner of Berlin. After five years they obtained their first converts among the Adivasis. After subsequent difficulties incurred by the converts during the Indian Mutiny of 1857 had been overcome, the missionary movement made steady progress. In 1869, when there were estimated to be 11,000 Christians, a schism occurred resulting in about 5000 people joining the S.P.G. (Society of the Propagation of the Gospel, Church of England) Mission. This later developed into the Diocese of Chotanagpur of the Church of England (Anglican Communion). The Gossner Evangelical Lutheran Church, however, continued to make steady progress and, by 1909, had 55,000 adherents in Ranchi District.

(*a*) *The Gossner Evangelical Lutheran Church:* The G.E.L.C. is presently organised by village communities under local pracharaks. A group of such village communities is a padripan for which a pastor is responsible. The Padripans are, in turn, grouped in Ilakas (Parishes under ordained pastors) and these Ilakas are further grouped in Synods which are administered by a "Synodal Board" composed of laymen and the "Ministerium" of the pastors. The Synods or Ilakas are finally grouped under 4 Anchalas, presided over by the Anchal adhyaksha, chosen every four years by the Anchalsabha, composed of pastors, teachers and eminent layleaders of the region. The Anchalas have an integrated autonomy, but together they form the Gossner Evangelical Lutheran Church, presided over by the Pradhan-anchaladhyaksha, one of the four Anchaladhyakshas, who presides over the whole Church for one year in rotation.

The G.E.L.C. is currently divided into two Anchalas. The first of these, called the North-West Anchal, includes the North, West, Kinkel, Madhya Pradesh, Hazaribagh Synods and the Synod of the Duars-tea garden-regions in West Bengal; they number about 70,000 members; the second Anchal, known as the South-East, comprises Govindpur, Burju, Takarma, Koronjo, Singhbhum Synods and the Synod of Bengal, and registers about 90,000 members; Assam has about 27,000 members, while Orissa registers 38,000 members. The Khutitoli Synod, presently has about 7,000 members and the Ranchi centre about 5,000. These form the other constituent units of the G.E.L.C. which had in 1967, a total of approximately 237,000 members. In 1965, for a total membership of 230,000 Christians, 7,304 baptisms of infants were recorded, and this suggests a birth rate of 31.75‰.

Of the present estimated 237,000 members of the G.E.L.C., about 160,000 reside in the Chotanagpur Division, 135,000 in Ranchi District, 18,000 in Singhbhum, and 6-7000 in the districts of Palamau, Hazaribagh and Dhanbad. In Chotanagpur the G.E.L.C. conducts 118 primary schools (4.929 pupils), 56 middle schools (5510 pupils), and 41 high schools (3,000 students).

(*b*) *The Northern Evangelical Lutheran Church:* Similar to the G.E.L.C. in its strongly congregational structure, but autonomous, is the Northern Evangelical Lutheran Church (N.E.L.C.) originally known as the Ebenezer Evangelical Lutheran Church. This Church also has members in Malda, West Dinajpur and Murshidabad districts of West Bengal though its main strength lies in the Santal Parganas District of Bihar. In 1960 the N.E.L.C. had 14,510 "I Class" members, and a full membership of 34,757 Christians, in 296 places of worship, under 58 Indian and 18 foreign ministers. The membership of the N.E.L.C. must now be close to 30,000 for the Santal Parganas District alone.

(*c*) *The Church of India* (*Anglican Communion*)*:* The Church of India (Anglican Communion), previously known as the S.P.G. and Dublin Missions, then subsequently as the Church of England, and finally now as the Church of India, Pakistan, Burma and Ceylon (C.I.P.B.C.) has two dioceses in this area, and is more hierarchically organized than the Lutheran Churches,

under bishops who administer their dioceses and serve out the full term of their life. The Bhagalpur Diocese covers a little of the territory of the Santal Parganas, while the Diocese (Anglican) of Chotanagpur covers the entire Chotanagpur Division and North Orissa.

For administrative purposes, villages are grouped under parishes, and are run by ordained and appointed ministers. High and middle schools, as also other institutions may be attached to these parishes. The Parishes are further grouped into Districts (Church of India Districts) which are under the direct care of the Bishop-in-charge of the diocese who is in union with the other bishops of the Anglican union.

In 1960, Ranchi District (Church dt.) had 6 parishes, 8 ordained ministers, 3 high schools, 2 middle schools, 2 training schools and 1 hospital. Murhu had 6 parishes and 9 ministers and 3 middle schools; other Church-districts were: Itki, Kamdara, Lohardaga, Hazaribagh, Chaibasa, Manoharpur (W. Singhbhum) and Orissa.

The bulk of the Anglican Christians of the Chotanagpur diocese are to be found in Ranchi District, particularly among the Mundas South of Ranchi and from there via. Murhu down to Manoharpur in Singhbhum District. In 1967, the Ranchi civil district is estimated to have had about 56,000 Anglican Christians (full membership), and Singhbhum about 15,000, Orissa 7,000, Purulia and Dhanbad about 3,000 and Hazaribagh 3,000. The total membership of this Church may be approximately about 80,000. To these must be added a few thousand people in the District of Santal Parganas.

(*d*) *The Roman Catholic Church:* The largest Church in tribal Bihar is currently the Roman Catholic Church. Jesuit missionaries of the Church, first began working in Chaibasa in 1869, and concurrently moved to the South East part of Ranchi district. Conversions of Adivasis to the faith was first begun by Fr. C. Lievens, a young Belgian Jesuit who defended the land-rights of the Adivasis against the encroachments of the landlords. By December 1885, about 2,000 persons had been baptised. Conversions were especially numerous in Barway and Biru (Western part of the District). By 1893, there were 100,000 converts. Church statistics claim that in 1930, there were, in Ranchi district alone, about 148,000 members. This figure rose to 236,073 in 1961, and to 278,500 in 1967. In 1967, the Hazaribagh-Palamau districts were estimated to have an additional 33,285 Catholics with a further 15,000 in Singhbhum, 2,500 in Dhanbad and almost 30,000 in the Santal Parganas. In 1967, therefore, the Catholic population of Tribal Bihar would probably be in the neighbourhood of 360,000. (This Church has yet another 200,000 members among the tribals of North Orissa and East Madhya Pradesh.)

The Catholic Church is highly centralised. Its visible head, the Pope who resides in Rome, appoints all the Bishops, the world over. For administrative purposes, tribal Bihar has been divided by the Church into three

separate units. The first of these, the Dumka Diocese, covers the territory of Santal Parganas, with the exception of two anchalas in the North West which fall under the Diocese of Bhagalpur, (Catholic). The second, comprising the Jamshedpur Diocese, covers the districts of Singhbhum and Dhanbad as well as Purulia in West Bengal. The third, consisting of the Ranchi Archdiocese, covers the three other districts of Chotanagpur division. The Archbishop of Ranchi looks after the affairs of Ranchi district directly though the administration of Church affairs in Palamau and Hazaribagh are entrusted to an Episcopal Vicar (representative).

In the different dioceses of the Catholic Church, parishes group 10 to 60 villages together and, are administered by parish priests and their assistants, appointed and controlled by the Bishops; the parish priests look after the religious needs of the people and assist in organizing their socio-economic welfare. In most villages, there are primary schools; in all parishes and important centres, there are middle schools, and in most parishes there are high schools. Some of the high schools are run by religious orders, who also assist the Bishop in special fields of action. However, most of these have their own internal administration and some are congregation of priests (Jesuits), Brothers (Gabrielite Brothers) and Sisters (f.i. Ursuline, St. Anne's Sisters etc.). A fair number of the high schools are run by committees of lay people. The parishes are further grouped by deaneries, the 55 parishes of Ranchi Archdiocese being grouped under the deaneries of Ranchi East, Ranchi West, Barway, Gumla, Noatoli, Khunti, Biru and Hazaribagh. In 1967, the Ranchi Archdiocese alone had 535 primary schools, 119 middle schools, 39 high schools, 3 Cambridge schools and a college; these catered to 53,231 boys and 28,683 girls.

(e) *The Methodist Church of South Asia (M.C.S.A.):* This Church is active in the industrial centres of Singhbhum and Dhanbad particularly in places such as Gomia, Gomoh, Sindri, Bokaro, and Dhanbad; a Methodist Missionary Society has 11 Missions in the Santal Parganas. Methodists number probably less than 10,000 in the territory under study.

(f) *The United Church of North India (Presbyterian) or U.C.N.I.:* This Church has two centres close to Giridih (Hazaribagh District) and two in Dhanbad District. Its members are only a few hundred.

(g) *The American Baptist Bengal Orissa Mission (A.B.B.O.M.)*; and the *Bengal Orissa Yearly Meeting (B.O.B.Y.M.)* had in 1960 a full membership of 11,200 in 70 places of worship; Baptists are of local importance in the Ghatsila area of the Dalbhum Subdivision of Singhbhum district, and in Jamshedpur.

(h) *The Mennonite Mission and the British Churches of Christ:* In Palamau district there are the Bihar Mennonite Mission and the British Churches of Christ, with a few hundred members.

(i) *Other Christian Groups:* These comprise the smaller missions such

as the Pentecostal Holiness Mission with a few centres in the Santal Parganas, and the Witnesses of Jehovah, who are mainly active in the urban centres among the lower strata of other Christian communities.

(j) *The Seventh Day Adventists* have a few hospitals and dispensaries; they have 3 centres in the Santal Parganas, 8 centres in Ranchi District and one centre in Singhbhum.

Altogether, the smaller groups are estimated to have only one or two thousand members.

Together then, out of an estimated population of 13,900,000 (1967) in the area, Christians claim to be about 637,000 (4.55%); of these the bigger Churches such as the Roman Catholic, Lutheran and Anglican Churches, are likely to have 623,000 or 4.4% of the total population of the area; and 97.5% of all the Christian people. Catholics alone number 360,000 and constitute 56% of all the Christians and 2.5% of the total population.

3. District-wise Distribution of Christian population:

In 1967, *Ranchi District* had a total estimated population of close to 2,400,000 (2,138,565 in 1961, increasing at an annual rate of 1.6%). Of this, Christians claimed to be 460,000 (19%), Catholics constituting 278,000 (11.2%).

In the *Singhbhum District* there are estimated to be 15,000 Catholics, 18,000 Lutherans (G.E.L.C.), 15,000 Church of India (Anglicans), 10,000 Baptists and about 2-3,000 others. All taken together, the Christian population is roughly estimated at 60,000 out of an estimated total population of 2,285,000 (2,040,911 of 1961, growing at the annual rate of 2%). This amounts to 2.67% of the total population.

The number of Christians in *Dhanbad* is presently about 9,000 (of whom 2,500 are Catholics); this would be 0.7% of the population as compared to the 0.4% of the Census of 1961.

In 1967, Catholics in *Palamau* numbered approximately 19,600. Non-Catholic Christians were estimated at about 2-3,000. The total figure of 22,500 Christians amounted to 1.8% of the overall population of the District as against 1.7% indicated in the Census of 1961.

In *Hazaribagh District,* in 1967, there were roughly 13,500 Roman Catholics. Together with the other Christians, this number would amount to 20,000; 0.7% of the total population of that area.

Finally, in the *Santal Parganas,* the Catholic population is currently estimated at 28,000. The N.E.L.C. has more members and the Methodist and Church of India (Anglican) Missions another 5,000. The 62,000

Christians in this region amount to 2.16% of the total estimated population of 2,915,000.

4. Demographic Vitality of Christian Tribals in Ranchi District:

In Ranchi District, 378,711 (or 78.36%) Christians of Tribal Bihar are presently concentrated. Whereas from 1931-1961 the population of Bihar went up by 42%, that of Ranchi District rose, in the same period, only by 34%. Generally speaking, however, many of the tribal groups of Ranchi District, such as the Oraon, Munda, and Kharia Christians increased at the rate of 41.3%. This is apparent from the following table:

Population of Mundas, Kharias and Oraons and Christians of Ranchi District in 1931 and 1961 and their Percentage of Increase 1931-1961

		Population		*Difference* 1931-1961	
TRIBE		1931	1961	Numbers	%
MUNDAS	Gener.	386,400	465,000	78,600	+20.4%
	Christ.	97,241	141,400	44,200	+45.4%
		(25.2%)	(30.4%)		
KHARIA	Gen.	75,083	96,000	21,000	+28.0%
	Christ.	46,891	66,890	20,000	+42.5%
		(62.5%)	(69.6%)		
ORAON	Gen.	440,000	562,774	122,500	+27.8%
	Christ.	113,322	155,000	42,000	+37.1%
		(25.7%)	(27.5%)		

Among the Catholic Christians of Ranchi Archdiocese (covering the districts of Ranchi, Hazaribagh and Palamau) the birth rate during the last 5 years has been about 3.8%, the death rate 1.2% (whereas 30 years ago in 1935 it was 2.07%). In general, the birth rate amongst Catholic Mundas is lower than the birth rate among other tribal Catholics, by about 0.4%.

In the decade 1951-1961, the Catholic population of Ranchi District showed an annual increase of 2.14% as against an annual increase in the general population of 1.6%. This rate of growth is not the same in all the subdivisions. In Gumla subdivision, for example, the rate of growth of the Catholic population during the same period was just slightly above the rate of growth of the general population, and in the anchals of Chainpur and Dumki it was actually lower. This is evident from the following figures:

Rate of growth of General Population and Catholic Population in Ranchi District from 1951 to 1961 in percentages. (Sources: Population: Census, 1961; Catholics: Sacred Return, 1951, 1961.)

General Population Growth % 1951-1961		*Catholic Population Growth %* 1951-1961	
Simdega Subdivision	12.5%	Biru Vicariate	16.5%
Khunti Subdivision	6.5%	Khunti Vicariate	25.–%
Sadar Subdivision	20.75%	Ranchi Vicariate	31.5%
Gumla Subdivision	14.8%	Gumla Vicariate	17.7%
Chainpur Dumri Anchal	14.4%	Barway Vicariate	13.–%

The Catholic population of Ranchi District has registered its highest rate of growth during recent years, in the urban parishes of Ranchi town itself. In 1963 the four urban parishes of Ranchi Cathedral, Doranda, Hulhundu and Shamlong had 14,000 Catholics (5.78% of the Catholic population of Ranchi District); in 1967 the same four parishes had 20,500 Catholics (7% of the Catholics of the District). This increase is 19% of the total increase of the Catholic population of the district. The increasing urbanisation of the Catholic population, and the slow demographic progress or stagnation of the population in the rural areas, are important factors for Church planning in the years to come. Table XI of the appendices to this Chapter provides some interesting data to further illustrate this point. Tables XII and XIII respectively provide figures, according to the 1961 Census, of the Christians in Bihar in the different districts and in percentage of the total population of the State, and Christians in Chotanagpur Division by major tribal groups also in percentage to the total population.

Appendix: Table I

Area and Population of Bihar by Divisions and Districts
1961

	Area	*Population*	*Density per sq. Mile*
Bihar	67,196	46,455,610	694
Patna Division	11,338	9,815,655	871
Patna	2,164	2,949,746	1,386
Gaya	4,766	3,647,892	769
Shahabad	4,408	3,218,017	733
Tirhut Division	12,585	15,122,554	1,201
Saran	2,669	3,584,918	1,337
Champaran	3,553	3,006,211	851
Muzaffarpur	3,018	4,118,398	1,364
Darbhanga	3,345	4,413,027	1,314
Bhagalpur Division	17,980	12,586,115	704
Monghyr	3,975	3,387,082	860
Bhagalpur	2,188	1,711,136	805
Saharsa	2,093	1,723,566	819
Purnea	4,259	3,039,128	731
Santal Parganas	5,470	2,675,203	487
Chotanagpur Division	25,298	8,931,286	354
Palamau	4,925	1,187,789	242
Hazaribagh	7,016	2,396,411	343
Ranchi	7,047	2,138,565	304
Dhanbad	1,114	1,158,610	1,045
Singhbhum	5,191	2,049,911	398
Tribal Bihar (Chotanagpur Division and Santal Pargana District)	30,763	11,606,489	378

Census, 1961

Appendix: Table-II

Total Population and Rates of Population Growth for India, Bihar and Chotanagpur (including Santal Parganas) from 1901 to 1961

	INDIA		*BIHAR*		*CHOTANAGPUR*		*CHOTANAGPUR AND SANTAL PARGANAS*	
Year	*Total*	*Growth Rate*	*Total*	*Growth Rate*	*Total*	*Growth Rate*	*Total*	*Growth Rate*
1901	236,281,245	—	27,312,425	—	4,263,707	—	6,068,233	—
1911	252,122,410	+5.73	28,315,024	+3.67	4,869,636	+14.21	6,747,122	+11.18
1921	251,352,261	— 0.31	28,127,283	— 0.66	4,974,028	+ 2.14	6,767,770	+ 0.31
1931	279,015,498	+11.01	31,347,810	+11.45	5,858,479	+17.78	7,908,737	+16.85
1941	318,701,012	+14.22	35,171,869	+12.20	6,633,572	+13.23	8,868,069	+12.13
1951	361,129,622	+13.31	38,783,778	+10.27	7,375,162	+11.18	9,697,254	+ 9.35
1961	439,235,082	+21.50	46,455,610	+19.78	8,931,286	+21.10	11,606,489	+19.69

Census, 1961

Appendix: Table-III

Total Population and Rates of Population Growth for Chotanagpur Division and Santal Parganas, from 1901—1961

YEAR	*RANCHI*		*HAZARIBAGH*		*PALAMAU*		*DHANBAD*		*SINGHBHUM*		*SANTAL PARGANAS*	
	Total	*Growth Rate*	*Total*	*Growth Rate*	*Total*	*Growth Rate*	*Total*	*Growth Rate*	*Total*	*Growth Rate*	*Total*	*Growth Rate*
1901	1,177,611	—	1,177,961	—	620,092	—	378,388	—	909,655	—	1,804,526	—
1911	1,375,599	16.81	1,288,609	9.39	687,710	10.90	502,062	32.68	1,015,656	11.65	1,877,466	4.04
1921	1,323,437	— 3.79	1,276,946	—0.91	733,394	6.64	566,000	12.74	1,074,254	5.77	1,793,742	4.46
1931	1,554,186	17.44	1,517,357	18.83	818,736	11.64	655,570	15.83	1,312,630	22.19	2,050,258	14.30
1941	1,661,554	6.91	1,751,339	15.42	912,734	11.48	742,639	13.28	1,565,306	19.25	2,234,497	8.99
1951	1,845,812	11.09	1,937,210	10.61	985,767	8.00	905,783	21.97	1,700,590	8.64	2,322,092	3.92
1961	2,138,565	15.86	2,396,411	23.70	1,187,789	20.49	1,158,610	27.91	2,049,911	20.54	2,675,203	15.21

Census, 1961

Appendix: Table IV Census 1961

Santals

District	*Total number of Santals*	*Percentage of Santals in comparison to the total population of the District*	*Percentage of Santals in comparison to the total population of the Scheduled Tribe population of the District*
Chotanagpur and Santal Parganas	1,255,000	10.81	31.90
Santal Parganas	771,000	26.58	75.36
Singhbhum	199,000	9.70	20.53
Hazaribagh	175,000	7.30	64.81
Dhanbad	108,000	9.32	84.37
Palamau	2,000	0.16	0.87
Ranchi	—	—	—

Appendix: Table V Census 1961

Mundas

District	*Total number of Mundas*	*Percentage of Mundas in Comparison to the total population of the District*	*Percentage of Mundas in comparison to the total population of the Scheduled Tribe population of the District*
Chotanagpur and Santal Parganas	614,000	15.67	15.66
Ranchi	466,000	21.34	35.45
Singhbhum	109,000	5.32	11.24
Hazaribagh	28,000	1.17	1.37
Palamau	8,000	0.67	3.51
Dhanbad	3,000	0.26	2.34
Santal Parganas	—	—	—

Appendix: Table VI

Census 1

Hos

District	*Total number of Hos*	*Percentage of Hos in comparison to the total population of the District*	*Percentage of Hos in comparison to the total population of Scheduled Tribe population of the District*
Chotanagpur and Santal Parganas	434,000	11.0	11.02
Singhbhum	434,000	21.22	43.30
Ranchi	—	—	—
Hazaribagh	—	—	—
Dhanbad	—	—	—
Santal Parganas	—	—	—
Palamau	—	—	—

Appendix: Table VII

Census 1961

Oraons

District	*Total number of Oraons*	*Percentage of Oraons in comparison to the total population of the District*	*Percentage of Oraons in comparison to the total Scheduled Tribe population of the District*
Chotanagpur and Santal Parganas	554,000	14.51	11.50
Ranchi	437,000	20.44	33.19
Palamau	80,000	6.73	35.05
Hazaribagh	14,000	0.58	5.18
Santal Parganas	3,000	0.11	0.29
Singhbhum	—	—	—
Dhanbad	—	—	—

Appendix: Table VIII Census 1961

Kharias

District	*Total number of Kharias*	*Percentage of Kharias in comparison to the total population of the District*	*Percentage of Kharias in comparison to the total Scheduled Tribe population of the District*
Chotanagpur and Santal Parganas	99,000	0.85	2.51
Ranchi	90,000	4.26	6.83
Singhbhum	9,000	0.43	0.92
Dhanbad	—	—	—
Hazaribagh	—	—	—
Palamau	—	—	—
Santal Parganas	—	—	—

Appendix: Table IX

Distribution of Scheduled Tribes, Scheduled Castes and Backward and Non-Backward Classes in Chotanagpur and Santal Parganas

District	*Total population*	*Total number of Sch. Tribe people*	*Percentage against the total population of the District*	*Total number of Sch. Caste people*	*Percentage against the total population of the District*	*Total population of Backward and Non-Backward Classes*	*Percentage against the total population of the District*
Chotanagpur and Santal Parganas	11,606,489	3,938,065	33.95	1,176,296	10.13	6,492,128	53.92
Ranchi	2,138,565	1,317,513	61.61	97,399	4.55	723,653	33.84
Palamau	1,187,789	228,589	19.24	308,051	25.93	651,149	54.83
Hazaribagh	2,396,411	270,693	11.30	300,647	12.55	1,825,071	76.15
Dhanbad	1,158,610	128,385	11.08	206,967	17.86	823,258	71.06
Singhbhum	2,049,911	969,807	47.24	60,925	2.97	1,019,179	49.79
Santal Parganas	2,675,203	1,023,078	38.24	202,307	7.56	1,449,818	54.20

Census 1961

Appendix: Table X

Percentages of Population by Religious Groups, Hindu, Muslim, Christian, Tribal and Others for 1901-1961 in the Districts of Chotanagpur and Santal Parganas

District		1901	1911	1921	1931	1951	1961
Santal Parganas:	Hindus	56.12	51.22	45.78	46.27	90.0	81.4
	Muslims	10.90	10.03	9.78	8.40	9.4	13.8
	Tribal	34.93	38.84	43.57	42.14	0.3	3.7
	Christ.	0.55	0.56	0.62	0.66	0.2	1.1
Palamau:	Hindus	86.06	85.4	84.22	81.83	88.3	88.5
	Muslims	8.49	8.39	8.86	9.7	9.7	9.7
	Tribal	4.21	5.08	5.91	8.02	0.27	—
	Christ.	1.28	1.13	1.01	1.05	1.39	1.7
Hazaribagh:	Hindus	81.—	82.73	83.85	79.62	—	87.5
	Muslims	10.16	10.35	10.65	11.31	11.1	11.8
	Tribals	8.76	6.75	5.16	8.78	—	0.1
	Christ.	0.17	0.19	0.34	0.29	—	0.3
Ranchi:	Hindus	39.95	39.69	41.88	55.48	54.40	63.7
	Muslims	3.53	3.69	3.92	4.21	5.20	5.8
	Tribals	46.—	43.81	39.40	23.50	22.13	12.6
	Christ.	10.52	12.81	14.80	16.80	18.05	17.7
Manbhum:	Hindus	87.03	80.77	91.84	87.94	85.66	88.3
(From 1951	Muslims	4.83	5.35	5.85	6.15	12.03	10.6
Dhanbad):	Tribal	7.92	13.56	1.92	5.48	0.61	—
	Others	0.72	0.32	0.39	0.43	—	
	Christ					1.06	0.4
	Sikhs					0.6	0.5
Singhbhum:	Hindus	43.21	41.97	52.67	49.48	62.77	74.5
	Muslims	0.88	1.11	2.06	2.88	3.77	3.7
	Tribals	54.77	55.73	43.73	45.10	30.4	18.7
	Christ.	1.19	1.19	1.54	2.54	2.02	2.1
	Sikh						6.9

Appendix Table XI

Total Number of Catholics in Ranchi District 1967 per Vicariate (Religious) and Percentage of Increase 1950-1967 and 1961-1967 per Vicariate

Vicariate	*Total Number* 1967	*Annual Rate of Growth %* 1950-1967 (*Total rate*)	1961-1967 (*Total rate of g.*)
Barway (N.W.)	50,186	1.9% (33.2%)	1.9% (11.1%)
Biru (S.W.)	88,274	1.6% (29.7%)	1.8% (10.7%)
Ranchi (N.E.)	44,298	3.6% (63.0%)	6.6% (40.0%)
Khunti (E.)	31,911	2.8% (48.0%)	3.3% (20.0%)
Noatoli (Centre)	48,969	3.5% (60.8%)	4.6% (27.6%)
Gumla (E.)	14,122	1.7% (30.0%)	1.6% (10.0%)

Appendix: Table XII Census 1961

Christians in Bihar by District and in Percentage of the Total Population

State/Division/District	*Total number of Christians*	*Percentages against the total population of State/ Division/District*
Bihar	502,195	1.08
Chotanagpur and Santal Parganas	483,297	4.16
Santal Parganas	30,376	1.1
Palamau	19,553	1.7
Hazaribagh	7,914	0.3
Ranchi	378,719	17.7
Dhanbad	4,360	0.4
Singhbhum	42,370	2.1

Appendix: Table XIII — Census 1961

Christians in Chotanagpur Division by Major Tribal Groups and in Percentage of Total Population

Name of the Tribes	*Total population per thousand*	*Percentage against the total population of the Division*
Santals		
Oraons	175	1.95
Mundas	165	1.84
Kharias	67	0.74
Hos		

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Appendix: Table XIII Census 1961

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Kharias	67	0.74
Hos		

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CHAPTER III

THE CHURCH AND AGRICULTURE

I. GENERAL CONDITIONS AND TRENDS

1. Topography and Situation

Broadly speaking, the State of Bihar is divided into two main blocks. The northern block is formed, except for a portion of Champaran District, by the Indo-Gangetic plain; the southern section is comprised extensively of forested uplands and is known as the Chotanagpur Plateau. It is a compact unit, the northern frontier of the plateau running along four districts: Shahabad in the north west; Gaya and Monghyr in the north, and Santal Parganas in the north east. Madhya Pradesh, Orissa and West Bengal are situated in the west, south and east of Chotanagpur respectively. From the administrative point of view, the area consists of five districts, namely, Palamau, Ranchi, Hazaribagh, Singhbhum and Dhanbad. Santal Parganas, though under the jurisdiction of the Bhagalpur Division, also forms part of the Chotanagpur plateau and of what is called Tribal Bihar.

The Chotanagpur Division of South Bihar consists, in the main, of elevated table-lands dotted over with numerous hills and pretty scrub jungles, intersected by a number of small and shallow streams which join together or fall into the two principal river systems, the South Koel and the Subernarekha. The whole surface of the plateau region is thrown up into long undulations, the depressions between the ridges of which have been cut up for purposes of cultivation into innumerable terraces rising one above the other like steps. The surface of the plateau is further diversified in appearance by expanses of arid, gravelly land, exposures of naked rock, ranges of wooded hills, and here and there, gaping ravines and gullies and the remnants of stately Sal forests. There are a series of plateaux of different heights, the highest being formed by the western part, namely, the "Pat" region, ranging from 2500 feet to 3600 feet above sea level covering the north-west corner of Ranchi district and the southern edge of Palamau district. The next plateau comprises Ranchi district and rises from 2000 to 3000 feet. Hazaribagh and Dhanbad districts constitute the third Plateau, lying at a height of 1000 to 2000 feet. The southern portion of Singhbhum district

forms the fourth category of these plateaux with an elevation of 500 feet above the sea level. Each of these series of plateaux descends to the next lower one not by gradual but by rather narrow and steep slopes known as scarps.

There are practically no natural lakes or large reservoirs of water in Chotanagpur, and the rivers in the area, with the exception of a very few, are narrow streams which are dry except during the monsoon. Subterranean streams are tapped into open wells, but even in these water levels sink alarmingly during the long dry summer. Surface-springs, locally *known* as Daris or Chuas, are common in some areas of the plateau and supply good drinking water to the villages in their immediate vicinity.

Chotanagpur was at one time covered over with dense forests but the Mundas and the Oraons opened up the country by clearing the jungles and establishing villages. More recently, with the rapid deforestation which has taken place, the central and eastern parts of the plateau have practically been completely denuded of trees. Such jungles as still remain on hills and riverbanks, in these parts, can hardly be called forests, for not many big trees have been left standing. Patches or small scrub jungles of [illegible] and other trees are scattered throughout the district and, by ancient custom and tradition, even these are reserved for the periodical use [illegible] to meet the domestic, agricultural and building requirements of village communities.

2. Climate, Rainfall and Temperature

Because of its situation in the tropical and subtropical region with the Himalayan Range in the North of Bihar, Chotanagpur gets the southwest monsoon during the months of June, July and August. [illegible] height, it is cooler than North Bihar and the resulting temperature is moderate and uniform. From March to May, the temperature [illegible]. The highest recorded temperature is in the month of May. During this month the mean temperature ranges from [illegible] in the [illegible] eastern region, to about 97°F in the west. Rainfall during [illegible] is usually nil.

In the month of June the southwest monsoon begins [illegible] temperature to fall until the month of August. [illegible] as the rainfall [illegible] the temperature [illegible]. With the beginning of November, a gradual decrease in temperature [illegible] and winter prevails until the middle of February.

The normal rainfall of the plateau varies from [illegible]. The precipitation is, however, [illegible] uneven. Table [illegible] gives an indication of the [illegible] usually obtained in the different [illegible]. [illegible] production [illegible] or are untimely, [illegible].

A study of the rainfall data available from the years 1951/52 to 1961/62, reveals that the total rainfall declined to between 35 to 39 inches in the districts of Palamau, Hazaribagh and Dhanbad during the years 1951/52, 1954/55 and 1957/58. Palamau is usually recorded as a drought district and the monsoon breaks out there late in July while in the other districts towards the end of May, or usually by the middle of June. The trend of rainfall is such that out of every 5 years, normally only 2 or 3 years produce a favourable monsoon. It is not uncommon to find that the crucial rain in the September/October period (Hathia), which is essential for the ripening rice crop, fails, making crop prospects precarious. The winter and hot weather rains too are fairly erratic in most years.

Temperature and humidity directly affect the germination, growth, grain formation and ripening of the different crops sown. The maximum annual temperature varies between 43°C to 44°C, the minimum between 35°C to 39° C, and the mean at about 24°C. The annual humidity varies between 62 to 71% at 8.30 a.m. and 50 to 58% at 5.30 p.m. Related to the rainfall as they are, the temperature and humidity vary considerably on different days and months during the year.

The temperature rises considerably during the summer months hitting the 58°C to 55°C mark. The land is parched and all vegetation usually dries up. The loo winds cause erosion on upland sandy soils and make them infertile. All wells, tanks, rivers and streams dry at most places during that time of the year. The temperature moderates with the onset of the monsoons, when the sowing of the different crops commences. The temperature during winter falls to between 25°C and 40°C.

3. Soil Types and Fertility Status of the Land

Chotanagpur is an undulating table-land of rocks, ravines and jungles with a few stretches of level lands. Along the border of Ranchi and Palamau districts there are some flat topped hills capped by laterites formed from the decomposition of basaltic beds and they are called the "Pats". The uplands have been reclaimed after cutting away the jungles and are, to a large extent, still infertile. A good deal of paddy land has been prepared by labourious terracing of the slopes with manual labour, and the skill of the cultivators, in achieving this, is evident when these areas are compared with similar regions where more scientific techniques have been employed as modern soil conservation measures. The uplands (Tanr) lands are usually sandy in texture, and red, brown, yellow, or an admixture of all these colours. The low lands (Dones) are dark grey or greyish brown in colour and contain more clayey materials. They receive a considerable blacking from the washings they get annually, during each successive monsoon, from the uplands. Due to the undulating topography of the land, the rainfall runs off rapidly from the top surface eroding fertile portions of the upland soils. The Sils or ridges are often damaged and require frequent repairs. Where the slope is steep and the current of the water fast, rills, gullies and

ravines have been formed. The tanr lands are thus poor and acidic in reaction, their PH content varying from 4.7 to 7.2. These soils are also porous and do not retain moisture for any length of time. Crops cannot, therefore, be grown satisfactorily on them without the application of lime at the rate of one ton per acre, or without the application of organic manures in fairly generous quantities.

Local names given to different types of land, by the tribal people, vary considerably, depending upon the location, type of soil, colour and composition. The uplands are called Tanrs, while the low lands are called Dones. Among the Tanr lands, the lands surrounding the village are called Dihari, Bhitha, Baharsi, while the homestead lands are known as Baris. The latter are more fertile, since they receive both, the house and cattle shed sweepings. The low lands or Dones are known as Garha, Bahial, Ghoghra, Jah, Chaura or Kaneli, Badh and Baid (Unchchat or Uprawas). The various clayey types are known as Kewal, Chitta, Nagra, Gori, Nargad Hassa, Halmad Hassa, Naka Hassa, Gobra Chitta, Dudhi Chitta, Dhava Chitta, or Karna. Loam soils are called Khersi Dudha, Charks, Pakus or Lobo, Haloorand Balsunder, Balmuha, Balipat, Balssura, Pour, Poursi and Bhursi, Dorasa, Pali, Ara Hassa, Kankal Hassa and Kundar Hassa. The sandy loams are called Bala, Goris, Paur, Geria, Bugud Hassa and Gital Hassa, and Bali. Other inferior soils, unsuitable for cultivation, are called Rugri, Gangti, Rehra, Sigid Hassa, Palu Hassa and Susang Hassa. According to colour, the different soils are called Lalmati, Sadamati, Kalamati, Kankarmati and Pathermati.

On an analysis of soil samples obtained in the plateau regions, the following fertility status of the land is indicated in the different districts:

Ranchi: Soils show on an average 0.040% of nitrogen, 0.002% of P_2O_5, 0.010% K_2O and a PH content ranging from 5.0 to 6.5. The maximum value of the nitrogen has been found to be 0.112% and the minimum as 0.019%.

Hazaribagh: Soils indicate 0.05% of nitrogen, 0.001% of P_2O_5 and 0.010% of K_2O. The PH content ranges from 5.5 to 6.8. The maximum value of nitrogen has been found to be 0.106% and the minimum as 0.027%.

Palamau: Soils contain on an average 0.060% of nit!ogen, 0.005% P_2O_5 and 0.010% K_2O. The PH content varies from 5.0 to 6.6. The maximum nitrogen content has been found to be 0.125% and the minimum as 0 056%.

Singhbhum: Soils contain an average of 0.040% nitrogen, 0.002% P_2O_5, 0.010% K_2O and a PH content ranging from 4.7 to 6.0. The maximum nitrogen content has been found to be 0.112% and the minimum as 0.019%.

Dhanbad: Soils have been found to contain, on an average, 0.040% nitrogen, 0.003% P_2O_5 and 0.010% K_2O and a PH value of 5.5 to 7.2. The maximum nitrogen content has been found to be 0.087% and the minimum as 0.036%.

The fertility status of the uplands is low, while that of the low lands high.

4. Occupational Distribution of Population:

Though the land in Chotanagpur is not as suitable for good cultivation as the land in North Bihar, in 1961, 77.6% of its population were dependant upon agriculture for their livelihood. The highest percentage was recorded in Palamau with 83.7%, followed by Santal Parganas (82.5%), Ranchi (82.3%), Singhbhum (77.3%) and Hazaribagh (77.2%). In Dhanbad, the agricultural population constituted only 44.7% of the total population of the district. In Chotanagpur, therefore, there is a larger agricultural population than that of Bihar (76.8%) and still larger than that of India (72.28%).

In Dhanbad and Singhbhum districts, forests and other industries such as coal, mica and lime mines, employ quite a large number of people and consequently, the pressure on the land is not as heavy as in the districts of Palamau and the Santal Parganas.

Within the districts, occupational distribution is not homogeneous. In Ranchi Sadar Sub-division 75.0% of the people depend on agriculture for their livelihood as against more than 85% in the rest of the district. In the Chatra Sub-division of Hazaribagh district, the agricultural population constitutes over 90% while in the rest of the district only 76-80%.

In Palamau, the agricultural population is 81 to 85% of the total population, and in Singhbhum 75 to 85%. In the Santal Parganas, the percentage of people dependent on agriculture during 1961 was recorded as 70 to 75% in Rajmahal, and 76 to 80% in the Deoghar sub-divisions.

In Chotanagpur, in 1961, the percentage of cultivators (who actually own the land) out of the total agricultural population, was 86.9%. Ranchi had the highest percentage (93.5%) followed by Dhanbad (90.3%), Santal Parganas (89.3%), Hazaribagh (87.6%), Singhbhum (82.6%), and Palamau (70.9%). It was reported that in the Santal Parganas and Hazaribagh districts, the number of agricultural labourers was increasing because village moneylenders and mahajans were increasingly taking over farmers' lands on mortgage.

It is fairly apparent that people work in their fields only for an average of 5-6 months a year. During the rest of the year, many of them go to work in mines, industries, construction works, forest industries etc. In the Santal Parganas, every year, a considerable number of people migrate to Assam and West Bengal during the slack sessions. In districts like Ranchi,

Singhbhum, Hazaribagh and Dhanbad, the people work in mines, industries and on construction jobs. In Palamau, people migrate to Ranchi, Hazaribagh, Assam, the Andamans and West Bengal.

5. Size and Distribution of Agricultural Holdings

The average size of holdings in Chotanagpur is about 4.2 acres, while the State average is 4.1 acres and the all-India average is 7.2 acres. Nearly two-thirds of the land is upland and only one-third low lying land. The low lands are on terraced slopes and the plots have, of necessity, to be small to check soil erosion and to conserve moisture for the paddy crops.

The uplands are sandy and unproductive and are usually more subject to drought. In this context, it is naturally difficult to consolidate holdings for future mechanization. The average size of holdings and the percentage of holdings less than 5 acres can be seen in Table II. According to a recent survey, 50.5% of the people have holdings less than 4.6 acres, 18% between one and three acres, 14.5% between seven to ten acres, and 17% above 10 acres. Thus, the majority of the cultivators have uneconomic holdings. The Land Ceiling Act allows 60 acres of land for each family of 5 members in addition to 10 acres of homestead, orchard and pasture land, and one-fifth of the entire area is added to this ceiling for every additional member over the first five. The economic size of a holding would be roughly between 20 to 50 acres on the plateau region, depending upon the type of land held.

An Agriculture Labour Inquiry Commission was established in Bihar in 1950 by the Ministry of Labour of the Government of India. According to its reports nearly 77% of the holdings in Bihar were less than 5 acres each, and accounted for nearly 30% of the total cultivated area. On the other hand the amount of holdings over 50 acres constituted only 0.5% of the holdings.

According to the Commission, by 1961, the average size of holdings per family in Bihar had further diminished to 3 acres, and even this was found to be fragmented into an average of about 12 plots. In Chotanagpur over 80% of the holdings are less than 5 acres. In Dhanbad, this percentage is a bit higher (84.8%), closely followed 81.9% in Hazaribagh, 80.4% in Singhbhum, 78.7% in the Santal Parganas, 77.4% in Ranchi and 77.1% in Palamau. The number of large holdings is comparatively small; less than 0.5% of the holdings in Chotanagpur, the average size of holdings here, ranging from 3 to 5 acres.

Again, according to the latest Land Settlement Reports, the size of actually cultivated farm holdings in Chotanagpur range from 2.5 to 6.2 acres. The highest land holdings are recorded in Ranchi district (6.2 acres), closely followed by the Santal Parganas (6.0 acres). Singhbhum comes next with 5 acres per family, while Dhanbad registers 4 acres, Palamau 3.1 acres and Hazaribagh 2.5 acres. These figures do not include lands like

Gairmajurwa, Parti, Khuntkati, Bhuinihari and other non-taxable lands.

6. Pattern of Land Use

The entire region of Chotanagpur comprises about 43 million acres, nearly 46.7% of the total geographical area of Bihar. In 1963/64 Chotanagpur had 46.0% of the net cultivated area of the whole of Bihar. Table III shows the district-wise picture of land use pattern.

A study of these figures reveals that the net sown area is increasing in each of the four districts, except in Dhanbad and Santal Parganas during the last 10 years. The area under double cropping too has increased in most of the districts during the same period, though these increases have been slow in coming. The reason is that there has been a dearth of rain during the last four or five years, particularly in the months of January and February, when the rabi cultivation takes place.

With the exception of the district of Santal Parganas, the proportion of land put to non-agricultural use is also increasing in Chotanagpur. In most districts new industries and mines have sprung up on lands formerly used for cultivation. In the Santal Parganas, on the other hand, current fallows and cultivable waste lands are decreasing, giving way to cultivation. The proportion of current fallows to the net area cultivated has also risen in the two districts of Dhanbad and Singhbhum. Here, agricultural labourers are gradually weaned away by the higher incomes that industries and mines offer.

The per capita share of the total land and the cultivated land can be judged from Table IV. It would appear from the figures quoted that one person has only 1.81 acres of land out of which only 0.55 acres is used for cultivation to earn his livelihood. A further perusal of statistics on classification of area for the years 1955 and 1964 indicates that:—

a) the land under non-agricultural use has increased from 5.4% to 7.6% due to the setting up of industrial centres, the construction of buildings, roads etc.;
b) the area under culturable waste land has been halved due to it being reclaimed for cultivation purposes;

c) the net area sown has increased from 22.7% to 29.1% as a result of the reclamation of forest areas and other culturable waste lands; and
d) the area under double cropping has come down from 4.8% to 2.6% due to unfavourable rains. The acreage sown to double or multiple cropping depends largely upon the quantity of rainfall during a monsoon, and the area of land under assured irrigation facilities.

7. Area Under Cultivation of the Main Crops and Distribution of Crops

During the 1961/62 agricultural year, 35.6% of the total area of Chota-

nagpur was under cultivation. Because of the lack of rain this area came down by 2% in 1963/64. Rice is the main staple food of the people, and in 1963/64 it covered more than 60% of the total cropped area in all the districts, except in Palamau where it covered only 27.9% The percentages of other districts are 62.8% for Ranchi, 58.6% for Hazaribagh, and 78.3% and 83.1% for Dhanbad and Singhbhum respectively.

Among the paddy crops, kharif (gora paddy) and aghani (winter paddy) cover a substantial area. Practically all paddy grown on the uplands is autumn (gora) paddy, and paddy grown on the deep lands is winter paddy. Summer paddy (tewa) is grown relatively in very few areas. In Palamau many people depend for their food on gram flour. It is for this reason that more pulse is cultivated there than in the other districts. In other places is given only a secondary preference in the diet. *In Palamau 31.9% of the total cropped area was under pulses (urid, masoor, etc.) in 1955/56,* but the area went down by nearly 3% during 1963/64 due to the lack of rain. In other districts the percentages of the cultivated area under pulse in 1963/64 were as follows: 17.5% in Santal Parganas, 9.3% in Hazaribagh, 12.6% in Ranchi, 5.3% in Dhanbad and 6.3% in Singhbhum. These figures indicate a decrease of about 1% in all the districts, except in the Santal Parganas, in comparison with those for 1955/56.

Wheat is a relatively recent introduction in the cropping pattern of Chotanagpur. In spite of this, in 1955/56, in Palamau, 25% of the total cultivated area of the district was under wheat and it went up by 12% in 1963/64. During the same period, in the other districts, the relative amount of land under wheat was much less: Ranchi 0.3 , Dhanbad 0.2%, Singhbhum 0.1% and Santal Parganas 0.7%. Except in Palamau this crop apparently *is not gaining in popularity in Chotanagpur, because in most places there* is no provision for irrigation once the monsoons are over. In Palamau, however, about 18.6% of the total gross cultivated area was under irrigation in 1955/56, and the district recorded an increase by 0.3% during 1963/64.

Much the same position is to be found with maize crops. *Considerable* areas have been devoted to this crop in Hazaribagh, Palamau and the Santal Parganas. In these districts the percentage of maize cultivation to the total cropped area in 1963/64 was as follows: Hazaribagh 9.9%, Palamau 10.3%, Santal Parganas 9.8%. In the districts of Ranchi, Dhanbad and Singhbhum the percentages were 1.2%, [illegible], and [illegible], respectively.

In Chotanagpur, ragi (marua) is one of the main food substitutes in the farmers diet during scarcity periods. In Hazaribagh and Ranchi districts, ragi is grown and consumed in fairly large quantities. In [illegible] this crop was cultivated in 5.6% and [illegible] of the total cropped area in Hazaribagh and Ranchi respectively. This marked an increase of [illegible] and 1% over the figures for 1955/56.

From Table V of the attached appendices it is clear, therefore, that rice continues to be the staple food of the people of Chotanagpur and ...

tutes, by far, the most important crop in all the districts. Wheat is less popular because of the lack of assured irrigational facilities. However, today in Palamau where conditions are comparatively more favourable for wheat, more land is being devoted to wheat than to rice cultivation. Pulse is extensively cultivated in Palamau and, to a smaller degree, also in the Santal Parganas. Ragi (maruwa) is popular in Ranchi and Hazaribagh, and maize is grown mostly in Palamau, Santal Parganas and Hazaribagh districts.

There are three main seasons encountered on the plateau. The kharif, rabi and summer seasons during which cereals, pulses, oilseeds and vegetables are grown. Among cereals, rice, maize, wheat, barley and ragi (maruwa) are the principal crops. Among pulses, chana, arhar, kulthi and kelai are the principal ones grown. Oilseeds consist principally of surguja, til, rape mustard and linseeds. The vegetables grown commonly include gourds, pumpkins, bhindi, bodhi, palak sag, etc, during the kharif or the monsoon season, and cabbages, cauliflower, french beans, tomatoes, chillies, brinjals, palak sag, kadu and onions in summer. During the rabi season, vegetables such as karela, khira, kekari, bhindi, etc., are sown. Ranchi has the advantage of climate and temperature for growing a variety of vegetables such as cauliflowers, tomatoes, brinjals, potatoes and french beans during the kharif season. Fruits available in most orchards in Chotanagpur, include such varieties as mangoes, leechi, kathal, ber, papaya, guava and citrus. Temperate fruits like peaches, pears, nak etc. can also be grown on the higher altitudes.

Normally, cereals are grown on about 87.3% of the cultivated area, pulses in 14.09%, oilseeds in 5.1% and vegetables in 1.3%. Most of the land on the plateau consists of single cropped areas, and paddy, among the cereals, occupies 78% of the area, maize 6%, ragi (maruwa) 4.5% and wheat about 1%. Of the total paddy crop, the autumn paddy (gora) occupies about 13% of the plateau region in Ranchi, though this area is as high as 24% of the total paddy area. Maize, wheat and oilseeds are predominantly grown in Hazaribagh and Palamau districts while maruwa and vegetables in Hazaribagh and Ranchi districts, and pulses mainly in Ranchi and Palamau districts. Gora, sweet potato, maruwa and jowar are drought resistant crops, and are treated as scarcity foods. The area under potato and sweet potato has now nearly doubled. Amongst other recent trends in cropping patterns, it is also evident that the cultivation of rainy season potato is increasing in the higher altitudes (2000 feet and above) of the Ranchi district where the area extends to about 2200 acres presently in the 'pat' regions and in the 'Bero' and Mandar thanas. The success of the cultivation of this crop depends largely upon the temperature (25°C) at the time of sowing. Most cultivators, however, sow the rainy season potato crop with the onset of the monsoons, without taking sufficient care to ensure that the correct temperature is present, and the crop sometimes fails.

The area under rabi crops increases or decreases in accordance with the

monsoon rains, the assured irrigation potential, and the extent of the provision of fencing against cattle trespass. Cotton, a relative new comer to the plateau region, has been introduced where the potentiality for growing exists, but the crop has not made much headway due to delayed and uncertain rains over the past few seasons and the lack of adequate care over its cultivation, by local farmers. Groundnut, which was previously grown mainly in certain areas of Palamau district, has now been extended to practically all over the plateau during the last three years. The area under this crop is currently increasing rapidly, especially in the Karra and Lohardaga blocks of Ranchi district. The area under vegetables too is increasing, and Ranchi exports vegetables to Calcutta and Rourkela fairly regularly. Intensive vegetables schemes have been started around the industrial blocks of Ranchi, Tatanagar, Dhanbad and Bokaro, and effective demonstrations are carried out regularly to educate farmers on the latest means of increasing production.

The area under fruit orchards too has increased almost four times since 1957. There is a great potentiality for growing fruit trees such as guavas, papayas, mangoes, leechis, etc. on the plateau. The Applied Nutrition Scheme presently in operation in Khijri and Chanho blocks of Ranchi district and Jinkpani and Jagannathpur blocks of Singhbhum district are presently concentrating on the production of fruits and vegetables. Van Mahotsava is also celebrated every year to plant more fuel and timber trees and the Afforestation Division of the Forest Department is currently entrusted with this work.

8. *Crop Patterns*

Seasonal Crop: In Chotanagpur, like the rest of Bihar, there are three main harvests corresponding to the seasons of the year: Aghani, Kharif and Rabi. Aghani and Kharif crops are sown with the onset of the monsoons. Kharif crops are ready by the months of September and October. Aghani crops last until December. Rabi crops are sown after the harvest of the Aghani or winter crops.

At one time there was a good deal of dependence on the Aghani or winter crops (cereals, pulses, oilseeds, etc.) which in 1963/64 covered over 60% of the total cropped area. However, people depend less and less on the Aghani crop now, mainly because the importance of a rabi crop is gradually increasing to meet the food shortage during the months of June, July and August. Besides, more irrigation facilities are being provided by the government as well as by voluntary agencies to facilitate the growing rabi crops.

Table VI of the appendices shows how in four out of six districts, viz., Santal Parganas, Hazaribagh, Dhanbad and Singhbhum, people are more heavily dependent upon the aghani crops than in the other two districts. In Ranchi 59% and in Palamau only 35.9% of the total cropped area is presently devoted to aghani crops.

Kharif cultivation is most important in Ranchi district 34.2% followed by Hazaribagh 29.9%, Palamau 28.5%, Santal Parganas 15.3%, Dhanbad 12.9% and Singhbhum 11.1%. The most common crops are gora paddy, maize, pulses, ragi (maruwa), milets and vegetables.

Rabi crops include vegetables, gram, wheat, mustard, etc., and these are widely popular in Santal Parganas, Ranchi and Palamau. In Palamau they constituted about 35.4% of the total cropped area in 1963/64; in the Santal Parganas 12.2%, in Hazaribagh 7.5% and in Ranchi 6.2%. The main reason for the low percentages of rabi cultivation in most of the districts may still be attributed to the lack of assured irrigation facilities. In these districts too, the agricultural workers are also more easily absorbed in mining and other industries during the slack season after December.

In Palamau and the Santal Parganas, on the other hand, people have to supplement their family income either from the rabi crops or from subsidiary forest occupations. In the Ranchi district, more than 60% of the rabi crop is devoted to vegetable growing in and around Ranchi city. Ranchi vegetables go not only to the local market, but to Jamshedpur, Rourkela and West Bengal as well.

9. Forests

The total area under forests in Bihar constituted 21.4% of the total geographical area of the State in 1963/64. Forests in Chotanagpur constituted 80.7% of the total forest area of Bihar during the same period. 35% of the geographical area of Chotanagpur is covered by forests as is evident from the Table given below:

Forest area in Percentage of the Total District Area and in Percentage of the Total State Forest Area. (1955 to 1964)

Districts	*% of the Total District Area* 1955/56	*% of the Total District Area* 1963/64	*% of State Forest Area* 1963/64
Hazaribagh	43.6	48.1	23.5
Ranchi	26.8	25.7	12.6
Palamau	63.5	50.0	17.2
Singhbhum	51.4	46.8	1.2
Dhanbad	16.7	15.4	17.1
Santal Parganas	23.4	23.7	9.1
Chotanagpur	42.6	39.7	80.7

Source: Chief Conservator of Forests, Bihar Government

In 1963/64 in Hazaribagh District, the total area under forests was 48.1% of the total geographical area, and in Palamau 50%. From the above it is evident that a gradual process of deforestation is currently taking place almost all over Chotanagpur, the only exception being Hazaribagh and the Santal Parganas.

The Chotanagpur forest is mainly composed of Sal trees and provides good quality timber. Mahuwa trees also abound. Their flower is consumed by both livestock as well as humans, in various forms. With the Mahuwa flower country liquor (Daru) is made, which is consumed locally or sold. About two months, March and April, are devoted to the collection of these flowers. The Chotanagpur forest also contains a rich growth of various other trees such as Tun, Palas, Ber, Kusum Karanj etc. The Kusum, Ber and Palas trees are used as "host trees" for the cultivation of lac. It has been estimated that in 1955/56, 60% of the total Indian lac production was obtained from the forests of Chotanagpur. Besides, the fruits of Kusum, Mahuwa and Karanj are used for extracting edible oils in practically all rural areas. A good number of local people are employed in forest occupations like collecting and selling timber, as also in collecting bidi leaves. It is estimated that about 40,000 people were employed in the bidi making industries in 1958 in the Chaibasa area alone

The area under forests on the plateau is 65.59 lakh acres which occupies 40.39% of the total area. This area has dropped recently to 37.2% as a result of the indiscriminate cutting of forest trees for fuel and for bringing further marginal and sub-marginal lands under cultivation. Forests in Chotanagpur yield an annual revenue of Rs. 250 lakhs, and provide employment to about 75 lakh people.

10. Irrigation

Wells, ahars, tanks and canals are the principal sources of irrigation on the plateau. The construction of an increasing number of large, medium and minor irrigation schemes has created an irrigation potential for about 4.98 lakh acres, but this is still only about 9% of the total area under cultivation. The schemes provide assured irrigation facilities for only 0.76 lakh acres during the rabi and 0.27 lakh acres during the summer seasons. Whenever there is a failure in the monsoons, (including the Hathia rains) on which the rice crop is so dependent, there is not enough water in the ahars or the wells to cover the acreage, and the irrigated area is consequently reduced considerably. In a favourable monsoon, and during the kharif season, the need to irrigate the land seldom arises. Most of the irrigation schemes which have been designed on the plateau, therefore, function only as a stand-by, and supply irrigation water merely when the rains fail. The construction of wells, though useful, is still looked upon as purely a make-shift measure, since one well can hardly irrigate more than an acre of land properly. There is no scope for tube wells on the plateau, due to rocks, stones, and the nature of the sub-soil. Whatever irrigation potential exists is seldom utilised to full capacity for the improved cropping pattern. There

are a number of big and perennial rivers on the plateau, viz. the Damodar, Barakar, Subernarekha, Sankh, North Koel and the South Koel. If the water flowing through these rivers, and their tributaries, are tapped through intake wells and stored in pukka reserviors built on the upper terraces, so as to feed connecting fields with irrigation channels, nearly one third of the area could be irrigated. Such ahars or tanks could also serve as useful reservoirs of water, but their construction would be a costly affair. Even in the kharif season, however, there is added scope for the water from these rivers being tapped through a series of intake wells placed at intervals of about a mile each, on the riversides, from which irrigation water could be lifted by pumps, and diverted to fields through 1½ inch W.I. pipes.

Only recently have some private organizations taken up this system of irrigation on the plateau. Most cultivators, however, show a distinct preference to installing electric pumps in their own wells for lifting water. In the majority of areas, though, cultivators still have to depend by and large ultimately on the rains for a good harvest.

One of the major determining factors of the yield capacity of agricultural land in Chotanagpur, as well as in other parts of Bihar, is rain. Chotanagpur gets an average rainfall of 50 to 60 inches annually. Due to dependence upon the monsoon and the shortage of irrigation facilities in almost all its districts, only one crop a year is generally possible in Chotanagpur.

In 1955/56 about 10% of the total cropped area was irrigated either by canals, wells, tanks or other means. This percentage went down to 9.2% in 1961/62 and 8.1% in 1963/64. The main cause of this downward trend was once again the lack of adequate rainfall since 1958. In 1963/64 tanks, canals and even deep wells were reported to have dried up before the month of March. From 1955/56 to 1963/64, over 80% of the total irrigated land drew water from private sources. Government canals contributed only about 2 to 3% of the total irrigated area.

Area Under Irrigation from Different Sources as Percentage of Gross Irrigated Area (1955-56 to 1963-64)

District	*Canals*		*Tanks*		*Wells*		*Other Sources*	
	1955-56	1963-64	1955-56	1963-64	1955-56	1963-64	1955-56	1963-64
Santal Parganas	4.8	.3	72.5	80.7	9.9	2.4	13.8	16.6
Hazaribagh	34.8	1.7	46.9	50.7	14.1	35.7	4.2	11.4
Ranchi	41.5	5	3.4	4.5	12.2	44.6	43.9	45.3
Palamau	—	4.3	.1	2.5	10.3	7.6	89.6	84.8
Dhanbad	—	—	99.1	75.5	.5	14.7	.7	9.8
Singhbhum	75.2	37.7	15.1	48.4	.1	6.8	9.7	9.9

Source: Annual Seasons and Crop Report (1955-56 to 1963-64), Directorate of Statistics, Bihar.

As stated before irrigation by tube wells is negligible. In 1963-64 there were only about 200 tube wells in the whole of Chotanagpur and most of these were located in the Hazaribagh and the Ranchi Sadar Sub-divisions. Very few of them were used for irrigation. Whatever irrigation is being carried on presently, is mainly for the propagation of vegetables, and a *small fraction of rabi crops in Palamau, Santal Parganas and Hazaribagh* districts.

There are indicators pointing to an increasing interest in irrigation among farmers in Chotanagpur. Nowadays, more wells, tanks and small dams are being constructed both by the Government of Bihar and by private agencies and other interested organizations.

The uncertainty of a well distributed monsoon over the past few years has brought out the importance of artificial methods of irrigation for successful crop raising. There are a large number of rivers, streams, and rivulets in the region, but most of them run dry when the area needs water most for irrigation. The Maithon, Konar, Tillaiya and Panchet hill dams have been constructed in the Damodar Valley during the First and Second Plans. These four dams provide irrigation facilities for over 20,000 acres of land in the districts of Dhanbad and Hazaribagh.

There are three types of irrigation schemes, run by the Government of *Bihar; major, medium and minor. Major irrigation schemes are run by a* separate irrigation department and the Medium and Minor schemes are run by the Agricultural Department of the State Government. Upto 1965-66, there were 77 major schemes coverng an area of 304,555 acres of land, 235 medium schemes covering 64,863 acres and 11,218 minor schemes covering 186,580 acres. Table VII of the appendices attached shows a District wise distribution of Major, Medium and Mirnor Irrigation Schemes and the areas of land covered by each.

11. Food Requirements and Production

Despite all that is currently *being done in the Development field,* the plateau still remains a deficit area, and the production of cereals, pulses, oilseeds and vegetables continues to fall short of the requirements of the population. The result is that the remaining requirements are met by imports of foodstuffs from regions outside the plateau. Calculating the average per capita requirements at 16 ounces cereals, 3 ounces pulses, 10 ounces vegetables and 2 ounces oils to feed the population, there is a shortfall of approximately 7.25 lakh tons of cereals, 3.51 lakh tons of pulses, 5.61 lakh tons of green vegetables and 5.34 lakh tons of oilseeds each year. The reasons for this excessive shortfall may be summed up as follows:

a) The rising population, and *the influx of numbers of people from* outside to support expanding industries;
b) The lack of capital and the lack of will power of the average cultivator to produce more;

c) The poor fertility status and the low productivity of the upland soils;
d) The comparative absence of assured irrigation facilities; and
e) the general low yields per acre.

Although crops in general have recorded an increase in yield per acre since 1955/56 there is still room for further increases in food production, on the plateau, as is apparent from Table VIII of the attached appendices.

The present increases in yield are due principally to the use of an increased quantity of fertilizers and due to the employment of other improved agricultural techniques. These yields can be substantially enhanced further by the adoption of a package of practices recommended by the agricultural department for various crops, the use of high yielding varieties of seeds, a further provision of assured irrigation facilities, balanced manurial programmes, and by the application of split doses of fertilizers as top dressing when favourable monsoon conditions prevail. With the provision of even one suitable irrigation to cereals, pulses and oilseeds grown during the rabi season, it is estimated that the yield per acre can easily be doubled. There is need also for a shift in cropping patterns from uneconomical crops like gondli, gora, and other small millets to high yielding varieties of jowar (CSH1) in the drought affected areas, and to a crop such as groundnuts in areas where this can be grown successfully. Till comparatively recently, agriculture has been regarded as a subsistence occupation on the plateau, and has not been treated as an industry. The lack of capital for investment in farming, for providing irrigation facilities, improved seeds, fertilizers and plant protection measures stands in the way of increased production. Moreover, government loans and rural credit provided in cash, in the past, have been used by cultivators for unproductive purposes such as family weddings, etc.

This trend has been reversed over recent years and loans and rural credit are now provided more in kind than in cash. During 1965-66 a sum of Rs. 23 lakhs was distributed as taccavi loans against a sum of Rs. 12.56 lakhs in 59/60. Similarly, Co-operative loans distributed during 1963-64 amounted to Rs. 79.47 lakhs as compared with Rs. 33.20 lakhs during 1961-62.

29 co-operative farming societies have been registered initially in Chotanagpur. 11 of these are in Ranchi, 5 each in Hazaribagh and Singhbhum, 6 in Palamau and 2 in Dhanbad. 15 of these may be regarded as working satisfactorily. On close examination, it is clear that cultivators are not willing to pool their lands and are reluctant to combine due to other social factors. Although co-operative farms absorb failures and other agricultural shocks over a longer duration than an individual farmer can, present trends indicate that it is the individuals who achieve higher production on a pro rata basis than the co-operative farming societies. In the present situation obtaining in Chotanagpur, therefore, it is apparent that service co-operatives

can help cultivators far more in increasing production than actual co-operative farming societies.

Judged by the per acre yields, Chotanagpur still shows a very low level of productivity in comparison with North Bihar. However, production per acre has increased in regard to all the important crops from 1955-56 to 1963-64. This is due to the fact that, formerly the cultivators of Chotanagpur were rarely using manures on the low lands. Even on the uplands, manures were employed only for ragi, pulses etc., and cultivators had never thought of using chemical fertilizers before. Table 9 of the appendices shows the productivity in maunds per acre for the six main crops from 1955 to 1964.

It is clear from these figures, that productivity as regards rice, maize, and potato has been increasing rapidly in all six districts; farmers are using more manures and chemical fertilizers now for these crops, and the level of productivity in potato growing is about the same in all six districts in 1963/64, i.e. 10.88 mds per acre. This makes a very high increase in comparison with 1955-56. The productivity of groundnuts is also reported to have improved in recent years.

12. Cultivation Techniques

Processes of Cultivation: The two processes of growing low-land rice are known respectively as the Buna process or broadcast sowing, and the Ropa process or transplantation. The sowing may either be made in dust (dhuri-buna) or in mud (lewa).

Pre-treatment of Seed: This is hardly ever carried out and only comparatively recently have attempts been made through different agencies to educate farmers on this subject.

Manuring: All fields generally require manuring every year and most cultivators on the plateau have now accepted. in principle, the vital necessity of employing chemical fertilizers on their lands. The rice fields are generally manured in March or April. Lumps of decomposed or burnt cow-dung are placed in regular heaps on the fields, after the clods have been pulverized, and are then spread out by a spade or gently and lightly ploughed into the surface of the land.

Amongst organic materials, cow-dung, droppings of sheep, and farm refuse are still very commonly used. These are spread over the fields before the ploughing commences. Farmers have their own different methods of preparing compost pits but none of these are normally done in any scientific way. They burn dry leaves on the nursery beds before the seeds are sown. Wherever there is a forest near the fields, dry leaves are burnt in the forests and the ashes are carried over by the rain water to the fields. In Ranchi, Santal Parganas, Hazaribagh, Singhbhum and the Latehar Subdivision of Palamau district, tribal people use tank deposits as manure for p

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Sowing of crops directly for kharif crops and for raising seedlings of paddy and maruwa commence with the rains in the Rohini and Mirigsira nakshatras.

It is a general practice to alternate broadcasting and transplanting, especially in the upper dones. This is done to maintain fertility, conserve moisture and balance expenditure. Broadcast sowing (buna) is of two types: i) Dry (dhuri buna), and ii) Wet (mud-lewa).

Paddy is sown broadcast in bahiar khets in Rohini nakshatra, in the dust, shortly before the monsoon breaks. In the 'baid' khets, sowing takes place about three to four weeks late in adra nakshatra after the rains set in well. In the 'baid' khets the crops are ready by the end of September while in the bahiar by November.

The transplanting of paddy commences with the Adra nakshatra and Magha is the most ideal time for completing it. In Uttra nakshtra, water is generally drained out of the fields, only to be filled up in Hathia again, provided there are assured irrigation facilities or good rainfall prospects. Rain in the Hathia nakshtra is vital for the good harvest of the paddy crops and enhances the prospects of the rabi crops which are to follow. Chitra rains are considered harmful for paddy, when the crop is in a flowering stage, but this rain is considered beneficial for destroying insect pests.

The sowing of rabi crops (gram, peas, oilseeds) commences with Chitra while that of wheat and barley with Swati nakshatra. The winter rains, usually about 2 inches, are considered essential for a good rabi harvest.

Gram or linseed sown by the end of October is successful on the plateau. For raising wheat after aman paddy, a pre-sowing irrigation and 5-6 irrigations after intervals of 10-12 days are essential.

Weeding: Rice fields are usually weeded of grass and other noxious vegetation three times, once before the sowing, a second time about a month after the sowing and finally, yet again after another month or six weeks. The plough and the harrow are used on the first two occasions. The last weeding is usually carried out by hand and is done by the womenfolk in the family.

Weeding presents a greater problem on the tanr lands than in the dones, and the overall importance of weeding crops is only now being realized on the plateau. On tanr lands, a karni with a kudal is generally given in maize and groundnut after a month of sowing, when the plants are about 9 inches to a foot high, followed by hand weedng after one and a half months, when the plants are also thinned out to proper spacing. In other crops, too, hand weeding is practiced. In broadcast paddy, weeding and ploughing are done by the plough, in July and August, followed by a patta. The last weeding is carried out by hand, invariably, when weeds are picked out. Some weedicides such as Stam 34 MCPA, Pogue and 2-4-D, presently under

Husking: The paddy is either husked with the dhenki or with the samat. The dhenki consists of a very large mortar in the form of a vessel scooped out of a log of wood and sunk into the ground, and a pestle which is a wooden hammer head on a horizontal lever for working on a low wooden support. A woman alternatively applies and takes off weight by standing on the level bar and making the hammer head pound the paddy in the mortar. The samat is a wooden hammer, with which tribal women husk paddy, which is placed either in a large wooden mortar or in a hole in a rock. When the paddy is boiled before being pounded and husked the husked rice is called USNA rice. When the paddy is not boiled, but dried only in the sun and then husked, it is known as ARWA rice.

Cultivation of Other Principal Crops: Of the other more common foodcrops grown on the plateau, gora dhan (upland paddy) is broadcast on tanr lands. About three days after the sowing (by broadcast usually) the land is lightly ploughed and then harrowed to bury the seeds in. Weeding of grass and other vegetation is carried out by hand. The upland paddy is sown in June and harvested in September. The maruwa crop too is sown in June and harvested about the same time or in October. The gondli crop is about the first to be ready in Chotanagpur, and is sown broadcast on the tanrs in June and harvested about the end of July or the beginning of August.

Division of Labour and the Part Played by Women in Agriculture: The part taken by the women in actual agricultural operations, consists in transplanting paddy seedlings after the land has been prepared. The transplanting is traditionally never done by men. Women also weed the fields of grass and clear up the ploughed tanr lands of grass with spades. Very often, the breaking of the clods in the rice fields and the pulverizing of the soil is carried out by the womenfolk along with the threshing, sifting, carting and carrying of grain, and the husking and drying of rice. Women also carry water to their homes and, where grass is easily available in the monsoons, they cut bundles of it, and carry these for miles into neighbouring towns to sell them to Goalas who keep milk cattle in khatals there. This is often done out of economic necessity so as to help augment the farm income.

Livestock: The ordinary livestock of the average Chotanagpur farmer consists of oxen, cows, buffaloes, goats, fowls, and pigs. Sheep are only reared in areas where plentiful grazing is available to them in adjoining patras or forests. For most part, the cows and buffaloes kept by the villagers are of very poor quality and almost generally unproductive, under-nourished and unhealthy. The scarcity of green grass in the summer months and during the long, dry period after the monsoons, have all contributed to the degeneration of the cattle, and to the pitifully small size they grow to. In villages where there are jungles, the livestock are better off for fodder, and work animals get a rationed quantity of straw in summer merely to keep them alive. Cattle epidemics and diseases are not uncommon on the plateau, and many Chotanagpur cultivators often have to borrow money

at usurious rates of interest to replace their dead plough-animals.

The total livestock population of the Chotanagpur plateau is 136.47 lakh which is more than the human population. Roughly one person has 1½ animals to look after. The population of pigs and poultry on the plateau account for roughly 50% of the these animals the whole State. Infact poultry rearing is one of the favourite pastimes of the tribal population.

Most of the draught animals used in agriculture (bullocks and buffaloes) are small, under-nourished and weak and they are unable to pull improved soil-turning ploughs and other implements, with the result that improved farm tools have not found favour with most farmers in these regions.

The milk yields of goats, cows and buffaloes vary from 1 litre to 2 litres per day.

Poor breeds, and the scarcity of green fodder grasses during the long summer months, are responsible for the ill health and unproductiveness of the cattle of this region.

Double Cropping: Where double cropping is practiced some early ripening varieties of crops are immediately followed by other crops in the same fields and in the same agricultural year. Generally, on the uplands, a second crop like mustard, kulthi and oilseeds is cultivated after the kharif. The low lands are rarely cultivated for double cropping, except small fractions of land for vegetables or summer paddy. There is a great demand for vegetables in the rapidly growing urban and industrial centres of Chotanagpur. In 1961-62 the area under double cropping in Bihar was about 16-17% of the total cropped area. In Chotanagpur the double crop area during 1963-64 was 11.6% compared with 16% during 1961-62.

Rotation of Crops: The rotation of crops and various crop combinations are prevalent in almost all the districts of Chotanagpur. Different crops are grown in a regular sequence rather than the same crops on the same fields year after year. Such a rotation generally extends over three or four years. Then the cycle starts anew. This practice is a less intensive type of agriculture than single cropping. As such it has its advantages, but it also has great disadvantages in a country where grain needs are high.

Rotation is done with crops with different types of root systems and, usually, includes at least one crop which is deep rooted. Plants differ greatly regarding their root systems, both in respect of horizontal spread and depth. When a crop, such as wheat, paddy or ragi is continually grown, the plants feed on the same volume of soil every year and thus deplete nutrients from the top soil. The introduction of deeper rooted crops allows some measure of rest for the top few inches of soil. It may actually result in a gain of nutrients, in the top layer, as nutrients are pumped up by roots feeding in the deeper layers. When these plants mature and die, the nutrients, the roots and whatever fading stems are left behind in the soil, contri-

bute to enrich the top soil. In Chotanagpur broadcast paddy and wheat are deep rooted, while transplanted paddy, gora paddy, ragi are rather more horizontally rooted crops. In the low lands, transplantation and broadcast are adopted alternatively. In the uplands, black gram is generally followed by gora paddy or ragi etc.

Mixed Cropping: Mixed cropping is the practice of sowing one main crop, and one or more subsidiary crops, together, on the same plot of land, and at the same time. The proportion of different crops in the mixture depends upon the local soil and climatic conditions.

Mixed cropping has the same beneficial effect on the maintenance of soil fertility as crop rotation, because soil nutrients are more evenly distributed and the soil is not depleted of any single nutrient. It also checks soil erosion considerably. One particular advantage of mixed cropping is that it works as a kind of 'crop insurance' for the farmer. In the case of mixed cropping of ragi (maruwa) and urid gram instance, if ragi is attacked by pests, the pulse crop remains; similarly if there is an attack of black rust on urid the farmer may at least get ragi. Another advantage of mixed cropping is that the cultivator generally gets his requirements of cereal, pulse, oilseeds and fodder simultaneously.

Mixed cropping has the advantage of saving the total failure of a crop and it is, in this context, that mixtures of maize and rahar, maize and urid, wheat or barley and gram or pea etc. are generally practised by many farmers.

13. Improved Seed Multiplication Programmes and Varietal Changes

Improved seeds increase crop yields by 10 to 15% alone. With high yielding varieties it is possible to increase the yield of a particular crop by one ton or more. In order to saturate the areas with improved seeds, seeds are being multiplied and supplied to cultivators from 109 seed multiplication farms each consisting of 25 acre units, and 7 subdivisional agricultural farms, each of 50 acre units, in the entire range. There are 31 such farms in Hazaribagh, 28 in Ranchi, 21 in Palamau and Singhbhum, and 8 in Dhanbad. Subdivisional agricultural farms are located in the rural subdivisions of Ranchi, Hazaribagh and Palamau districts. These farms also serve the purpose of demonstration as well as seed multiplication units. They produce about 10846.9 quintals of paddy and 309.23 quintals of maize. Hybrid maize seeds and jowar cannot be multiplied on these farms due to the limited irrigation potential available to them. The farms are not, therefore, either able to produce or meet the demand of wheat and gram growers. About 4000 quintals of wheat and 5000 quintals of gram seed have, consequently, to be arranged and brought in from outside the State. The farmers are expected to grow and multiply this seed for their own use, and for exchange with other cultivators. With this end in view, a number of seed villages have been set up by the Governmnet Agricultural Department, but the response from the cultivators has not, so far, been very encouraging.

The following improved varieties are now gradually replacing local varieties of seeds in use:

Paddy: Aus—CH1007, CH1039, and high yielding varieties of paddy such as Native Taicheung 1 and I.R.8.

Early Aman: BR34 and BR4; *Late Aman:* BR8 and BR9.

Maize: Jownpur and Kalimpong. The high yielding varieties are Ganga 1 and Ganga 101, Safeda 2, and Deccan.

Jowar: CSH1; *Rahar:* BR65 and ST 7;

Groundnut: AK-12-24, Girisk and Ausaria Mutinda;

Wheat: NP799, NP 835, NP852, NP884 and high yielding varieties of SONRA 64 and Lerua Reja;

Barley: BR 22; Peas: Bonneville, line perfection and BR 12;

Potatoes: DRR, up to date, ON 2236, and Kufri Red.

Cultivators, however, face considerable difficulties in obtaining imputs like improved seeds, fertilizers, pesticides and improved implements in time. If seed stores are set up in every halka of the different blocks this difficulty would be obviated.

Despite all their shortcomings, the blocks have effected quite a number of changes in the agriculture of Chotanagpur. This is evident from the fact that the consumption of chemical fertilizers among the farmers alone, has increased from 1381 tons in 1955 to about 21,385 tons during 1965. The land brought under improved methods of cultivation increased from 147,354.37 acres during 1961-62 to 238,687.45 acres during 1964-65. The area under green manuring has also increased from 152,316 acres in 1961-62 to 178,246 acres in 1964-65. Improved seed distribution increased by 4% in the last five years, i.e. from 80,606 maunds in 1961-62 to 85,778 maunds in 1964-65.

Recently groundnuts have become popular among the farmers due to their high market value. Their supply has also increased from 200 maunds in 1963-64 to about 3,733 maunds during 1967-68, in the whole of Chotanagpur including the Santal Parganas.

Besides acting as service centres, the Block Development Centres run agricultural farms for demonstration cum seed multiplication purposes. At present there are 12 subdivisional agricultural farms and 128 seed multiplication schemes in Chotanagpur and the Santal Parganas.

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Mixed cropping has the advantage of saving the total failure of a crop and it is, in this context, that mixtures of maize and rahar, maize and urid, wheat or barley and gram or pea etc. are generally practised by many farmers.

13. Improved Seed Multiplication Programmes and Varietal Changes

Improved seeds increase crop yields by 10 to 15% alone. With high yielding varieties it is possible to increase the yield of a particular crop by one ton or more. In order to saturate the areas with improved seeds, seeds are being multiplied and supplied to cultivators from 109 seed multiplication farms each consisting of 25 acre units, and 7 subdivisional agricultural farms, each of 50 acre units, in the entire range. There are 31 such farms in Hazaribagh, 28 in Ranchi, 21 in Palamau and Singhbhum, and 8 in Dhanbad. Subdivisional agricultural farms are located in the rural subdivisions of Ranchi, Hazaribagh and Palamau districts. These farms also serve the purpose of demonstration as well as seed multiplication units. They produce about 10846.9 quintals of paddy and 309.23 quintals of maize. Hybrid maize seeds and jowar cannot be multiplied on these farms due to the limited irrigation potential available to them. The farms are not, therefore, either able to produce or meet the demand of wheat and gram growers. About 4000 quintals of wheat and 5000 quintals of gram seed have, consequently, to be arranged and brought in from outside the State. The farmers are expected to grow and multiply this seed for their own use, and for exchange with other cultivators. With this end in view, a number of seed villages have been set up by the Governmnet Agricultural Department, but the response from the cultivators has not, so far, been very encouraging.

e following improved varieties are now gradually replacing local
es of seeds in use:

: Aus—CH1007, CH1039, and high yielding varieties of paddy such as Native Taicheung 1 and I.R.8.

Aman: BR34 and BR4; *Late Aman:* BR8 and BR9.

: Jownpur and Kalimpong. The high yielding varieties are Ganga 1 and Ganga 101, Safeda 2, and Deccan.

: CSH1; *Rahar:* BR65 and ST 7;

dnut: AK-12-24, Girisk and Ausaria Mutinda;

t: NP799, NP 835, NP852, NP884 and high yielding varieties of SONRA 64 and Lerua Reja;

: BR 22; Peas: Bonneville, line perfection and BR 12;

oes: DRR, up to date, ON 2236, and Kufri Red.

ıltivators, however, face considerable difficulties in obtaining imputs nproved seeds, fertilizers, pesticides and improved implements in time. l stores are set up in every halka of the different blocks this difficulty l be obviated.

espite all their shortcomings, the blocks have effected quite a number anges in the agriculture of Chotanagpur. This is evident from the hat the consumption of chemical fertilizers among the farmers alone, ıcreased from 1381 tons in 1955 to about 21,385 tons during 1965. The brought under improved methods of cultivation increased from 54.37 acres during 1961-62 to 238,687.45 acres during 1964-65. The ınder green manuring has also increased from 152,316 acres in 1961-62 8,246 acres in 1964-65. Improved seed distribution increased by 4% last five years, i.e. from 80,606 maunds in 1961-62 to 85,778 maunds 64-65.

ecently groundnuts have become popular among the farmers due to high market value. Their supply has also increased from [illegible] maunds 63-64 to about 3,733 maunds during 1967-68, in the whole of Chota-ur including the Santal Parganas.

esides acting as service centres, the Block Development Centres run ultural farms for demonstration cum seed multiplication purposes. resent there are 12 subdivisional agricultural farms and [illegible] seed multiplion schemes in Chotanagpur and the Santal Parganas.

14. Chemical Fertilizers and Green Manures

The tanr lands of the plateau are generally acidic in nature, and require liberal dressings of organic manure to improve their texture and make them retentive of moisture. Cowdung is the main source of organic manure used but a greater portion of it is still burnt as cakes for fuel purposes, and the remaining manure is turned into compost for application over larger areas. The left over cow-dung is turned into manure by rotting for over a year and is applied to bari lands where more valuable crops like vegetables, potato, wheat and maize are grown. Cakes are not easily available at a fair price. With the area under groundnuts expanding and the intensive cultivation of oilseeds now expanding, an oil mill set up, in the region, would help in making oil cakes available to the farmers at reasonable rates.

Green manuring is not popular in areas where there are no assured irrigation facilities. Cultivators have to face many difficulties under uncertain rainfed conditions in sowing the seeds in time, and in burying the crop in time for the transplantation which follows. Town compost, which was not previously used by the farmers to any large extent, is now extensively in demand for growing vegetables and other crops, particularly in areas surrounding the urban centres. But with the increasing construction of septic latrines in these centres, the production of town compost is negligible, and is certainly not enough to be able to meet the growing demand.

Increasing quantities of chemical fertilizers are, therefore, being used by the farmers in uplands both during the kharif as well as the rabi seasons where there are irrigation facilities, and in the Done paddy fields. The wholesale increase in the use of fertilizers, in tons, over the recent years is apparent from the undernoted figures:

1941-42—21.9; 1945-46—273. 1950-51—928. 1954-55—1226. 1955-60—1384. 1960-61—6018. 1965-66—15733.

Out of these about two-thirds are in the form of nitrogeneous fertilizers and the rest in terms of phosphatic and potassic fertilizers. Bonemeal is seldom available at all. There are difficulties in obtaining even single superphosphate to meet the growing requirements and, consequently, substitute products in the form of rock phosphates are being supplied to cultivators presently. Potassic fertilizers are not needed to any appreciable extent on the plateau, and soil deficiencies in this are corrected by appling ash. Among the nitrogeneous fertilizers, calcium ammonium nitrate, ammonium sulphate, and urea are becoming increasingly popular. In many cases, however, farmer have still to realise the importance of balanced manuring of their fields by using organic manures, in every plot cultivated by them, at least once in three years through the rotation of available organic substances.

15. Improved Implements

The progress in respect of the use of improved agricultural implements,

as labour saving devices, is indeed discouraging. During the 1961 census, it was found that 9,669 iron ploughs and 74 tractors were in use in the region, as against 148430 and 1520 in the whole State respectively, accounting for 6.5% and 4.8% correspondingly. The progress in the sale of improved implements, on the plateau, has been recorded as below:

1961-62—2932; 1964-65—3811; 1966-67—2729.

Improved agricultural implements are being supplied by the credit agricole depots, but cultivators still face difficulties in obtaining them. The soil turning ploughs currently being suqplied too are not very suitable for the small and weak draught animals working in the fields. Efforts are still being made to evolve improved ploughs suitable to local conditions, and these will be placed before the cultivators in the near future.

16. Plant Protection Measures

With the identification of different crop pests and diseases commonly found on the plateau, and with the availability of effective control measures, cultivators are now gradually adopting plant protection techniques adequately so as to save not only their standing crops, but also their stored products. Control measures on white ants, stem borers, leaf hoppers, rice gundhy bug, aphids, etc. are quite effective. Experiments are still under way to control the incidence of hairy caterpillars, gall fly, blast blight and mango shoot galls, etc. The following table clearly shows the increasing popularity of plant protection measures, on the plateau, in recent years:

	Area treated in acres	*Trees sprayed*	*Pesticides in tons*	*Dusters and Sprayers sold (in Numbers)*
1952-53	1132.76	1936	49	11
1966-67	61379.41	45934	220	222

17. Soil Conservation Measures

Soil conservation measures are being popularised increasingly, on a government subsidised basis, on both culturable waste and on cultivated lands. The problem of ravines and gullies still remain to be tackled. A number of cultivators are not, however, properly exploiting the cultivable waste lands where soil conservation measures have already been completed.

The total estimated amount of land reclaimed by 1965 was 32,974.09 acres in the whole of Chotanagpur, out of which only 5,938.09 acres were defacto reclaimed by that time. A considerable portion of this reclaimed land is in the district of Ranchi, Hazaribagh and the Santal Parganas. During 1963-64 land reclamation was practically stopped in all the districts of Chotanagpur due to the lack of rain

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18. Wages

The wages paid to agricultural labourers have increased correspondingly with the rise in prices of commodities. Male and female labourers who were normally paid Rs. 1 and Rs. 0.62 in 1953-54 respectively, are now paid Rs. 1.50 and Rs. 1.12 per day. Agricultural wages are highest near the industrial pockets of the plateau and are lowest in Palamau. However, the wages of farm labourers have not generally increased in proportion to the general price level index, due to uncertain harvests over the past few years.

In Chotanagpur over 80% of the cultivators have an average production of paddy ranging from 30 to 100 maunds a year. It is enough to feed their families (an average of six persons) for only 5 months. According to our findings, out of 12,481 people covered by 30 church-sponsored socio-economic projects, 50.5% of the beneficiaries have a paddy production between 25 to 80 maunds, a year; 18% have between 20 maunds and 50 maunds, 14.5% have between 75 and 100 maunds, and 16% produce over 100 maunds of paddy a year. The production of other crops like dhal, maize, wheat, ragi, etc., ranges from an average of 5 to 25 maunds a year. The people, however, as has been pointed out before, do not represent the whole of Chotanagpur. By observation it was found that the production of foodgrains in Singhbhum and Dhanbad is also on the same level as the other districts of Chotanagpur.

In Hazaribagh (western part), the Santal Parganas and Palamau, the economic position of the farmers is even worse than in other parts of Chotanagpur. In Dhanbad, Singhbhum, the eastern region of Hazaribagh, and Ranchi, farmers are able to earn some subsidiary income from non-agricultural pursuits during the slack seasons.

Drinking is widespread in all the districts among most farmers. In the industrial areas of Ranchi, Hazaribagh, Dhanbad and Singhbhum, cultivators spend a sizable amount of their earnings in the liquor shops. In the villages, home prepared rice beer is a common drink, and an amount of rice is used in the preparation of beer at the end of each harvest.

19. Prices:

Prices of commodities show an upward trend. In 1958-59 the price of maize was Rs. 13.51 per maund, of paddy Rs. 18.00, of wheat Rs. 19.70 and of gram Rs. 17.10. The current prices of these commodities are Rs. 40/-, Rs. 35/-, Rs. 60/-, and Rs. 70/- per maund respectively. Palamau is the cheapest of all districts with regard to the prevailing prices. The prices of most of these commodities are generally highest in August/September and usually decrease with the prospects of a good harvest. The current rise in prices has provided good incentive to the farmers, and they are now concentrating on the production of food crops in preference to cash and other crops.

Rural indebtedness is an evil afflicting most Indian farmers. Chotanagpur is no exception. But rural indebtedness among the Ranchi farmers is rapidly on the decline. In the Santal Parganas, Hazaribagh and part of Singhbhum and Palamau, farmers are still in the clutches of the village moneylenders, mahajans, and banias. These moneylenders charge a rate of interest as much as 75 to 100%. Finding it difficult to pay back their loans in time, farmers usually mortgage their lands to these moneylenders. It is reported that about 50% of the lands of non-Christian tribals are in the hands of these moneylenders. Christians are gradually being saved from this evil through Grain Golas started by the Church and the Chotanagpur Cooperative Credit Society to which we have made reference later.

According to our recent survey findings, detailed in the second half of this Chapter, respondents representing 26 projects including grain golas and branches of the Cooperative Credit Society, pointed out rural indebtedness as one of most important reasons for starting the project. In Chotanagpur, village money lenders, mahajans and banias and big landlords still dominate rural credit. This problem is reported to be much more acute in the Santal Parganas and Hazaribagh. In Ranchi and Palamau districts, however, the Cooperative Credit Society is quite active. Besides the usual rural credit cooperatives, grain banks have also been opened in the rural areas to prevent the villagers from falling into the clutches of moneylenders. But even in these districts, village money lenders exercise a great influence on certain sectors of the rural population. In the Jameshedpur Diocese, the rural people get enough employment opportunities in the mines and industries to supplement their family income during the slack seasons and, consequently, there is less need for borrowing money or grain from mahajans and banias.

20. Agricultural Marketing

Conditions of agricultural marketing too, have improved considerably over the past few years. The farmers in the villages now collect intelligence on latest market trends through the radio and the newspapers and, generally, now withold their produce in order to get better prices. With the construction of better roads and the availability of increased transport facilities, farm produce can be more easily transported to the markets for quick disposal. The system of regulated markets to ensure fair and uniform prices to the producers is now developing in all the big urban centres. This system is being introduced in the Ranchi market presently. The standardization of weights and measures, through the metric system and the replacement of local weights and measures of stones and bricks, by brass and iron weights and measures, are currently saving both producers and consumers alike from the fraud which is often perpetrated upon them. Farmers have, however, to be more fully educated to comprehend the metric system of weights and measures.

21. Community Development Blocks

Even before the Five Year Plans took shape government had introduced

a "Grow More Food" campaign for the development of agriculture in Chotanagpur as well as in the other areas of the State.

Since the first Five Year Plan special attention has been paid to agricultural development. During the First Five Years Plan 21.9% of the total financial outlay of Bihar was devoted to agriculture and community development. This figure increased to 31.0% during the Second Plan and came down to 24.4% in the Third Plan. As a result, food production during the First Plan exceeded the plan target of 50.53 lakh tons by 4.80 lakh tons. During the Second Plan, the target of 64.03 lakh tons was exceeded by 5.97 lakh tons. The Third Plan target for the production of foodgrains was put at 82.89 lakh tons. But by the end of the crop season of 1961-62 actual production of foodgrains was only 73.1 lakh tons. In 1965 the production attained only 67 lakh tons.

In order to bring the whole of Chotanagpur under planned agricultural development programmes, the plateau was divided into 193 block development centres. Each centre is administered by a Block Development Officer as a co-ordinator and five to six departmental officers for agriculture, animal husbandry, public works, fisheries etc. Each block is divided into a number of halkas. These halkas are under the charge of village level workers for developmental purposes. The village level workers, in turn, are supervised and instructed by Agricultural Supervisors.

During 1965-66, "intensive agriculture programmes" were introduced on the basis of the experience acquired from the package programme District of Shahabad. In Chotanagpur, the District of Ranchi with a 23 blocks and the Santal Parganas with 20 blocks were selected for this scheme, in which specific agricultural development works are carried out, on a more intensive scale, by applying additional resources and technical staff.

The idea behind this programme is that, instead of spreading the limited resources and technical staff uniformally and over the blocks, without getting satisfactory returns, it is better to concentrate them on certain areas which have assured rainfall, higher fertility etc. In both these selected districts paddy cultivation is given top priority.

22. The Agricultural Economy

As the area is developing, barter economy among the farmers of Chotanagpur is gradually disappearing. More and more weekly and daily markets and 'hats' are coming up throughout the region. At present the village markets are becoming the centres of business and even political activity. Through the Gram Panchayat and Community Development movements, every effort is made to connect these village markets with the main roads. At the present time practically all the people of the area are market conscious.

However, some remnants of a barter economy can still be seen among the farmers of Chotanagpur, viz. one kind of grain is exchanged for another;

sometimes labourers, blacksmiths and potters are paid in grain. There is exchange of labour also among the farmers.

Formerly farmers were self-sufficient mainly because their needs were few. As social, cultural and technical changes have reached them, their daily requirements have increased. Besides, food, the farmers now require a good variety of clothes, vegetables, sugar, tea, spices etc. which they get from local markets.

One clear sign of the passage from a subsistence to a market economy, example, is that people no longer grow cotton for their own clothes. It is easier now for them to buy mill made clothes, in the local markets, at cheaper price than it costs them to grow their own cotton. Local markets are commercially dominated by local mahajans, muslims, banias and, general non-tribal people.

23. Effects of External Factors on Agriculture

Industrialization and urbanization are gradually changing the landscape and the very life of Chotanagpur. Rural life has been, and continues to be, greatly affected by the urban way of living.

The following are some of the main results of industrialization:

a) Cultivable lands are taken away from farmers and used for setting up industrial complexes and urban centres, leaving the farmers landless.
b) Because of the growing population, urbanization and industrialization, food prices show a tendency to rise daily.
c) Surplus agricultural labour usually finds its way into industrial and mining operations.
d) To supply electricity to big industrial concerns and new townships, new dams are being constructed at the expense of cultivable lands. According to a recent report, since the Second Five Year Plan, about 15,000 acres of cultivable lands have been occupied every year in Bihar by industries, dams, townships and roads. A good percentage of this cultivable land has been lost in Chotanagpur.
The development of general education in rural areas has also affected agricultural production. Educated young boys and girls are easily attracted by white collar jobs in towns and cities. There is hardly a graduate or even matriculate who now prefers to stay at home and cultivate the land.

24. Agricultural Research:

There is a Regional Agricultural Institute at Kanke where research and experiments are conducted to solve the problems of the farmers, and to evolve and recommend suitable crop varieties and production techniques to increase food production. The institute is comprised of different sections dealing with agronomy, chemistry, entomology, virology, and agricultural

engineering. The agronomy section conducts experiments on paddy, maize, pulses, and oilseeds. The findings are tested locally at the district agricultural farms situated at Hazaribagh, Baliapore (Dhanbad), Pulida (Chaibasa) and Chianki (Palamau). These farms are further treated as subdivisional farms. There is a citrus research station at Chianki, in Palamau, dealing with the propagation and problems of citrus cultivation in the State. There is only one soil testing laboratory at the agricultural college in Kanke, and there is another at the D.V.C. headquarters in Hazaribagh. The soil conservation research unit is also located at Hazaribagh.

25. Agricultural Education and Training:

The importance of agriculture in our country's economy being what it is, the vital necessity of providing adequate agricultural education and training cannot be underestimated. With modern science and technology at our disposal, it is possible to bring every piece of cultivable land under cultivation through better methods. But the essential requirement is personnel. There is need now to develop manpower resources to the full. This involves training agricultural workers and equipping them with the necessary knowledge and skills. Both government and voluntary agencies are alive to this need, and are taking steps to train agricultural advisers, village level workers and farmers in modern techniques. Institutions have been started for various grades of agricultural workers.

The Kanke Agricultural College was started in 1959 with a view to training agricultural experts. The College provides a four year integrated course (five year for matriculates) leading to the B.Sc. (agriculture) Degree from Ranchi University. The Institute also provides for a Master's degree and research work. After successfully completing the B.Sc. degree, students are directly posted to different Development Blocks in the State as "Agriculture Supervisors" on the pay scale of Rs. 190-20-300-E.B.-30-400 per month.

Persons applying for admission to the Institute should have either a matriculation certificate with science subjects, or be a first or high second division holder in Pre-University Science with Botany as one of their subjects.

In 1966, there were altogether 356 students (from Pre-Agri to VI year class) including four tribal and two non-tribal Christians. There is provision for stipends from the State Government for scheduled tribes, scheduled castes and poor students amounting to Rs. 75/- per month. plus college tuition fees. Presently there are 29 persons on the teaching staff.

The college has about 204 acres of cultivable lands for practical training. It has a fully equipped library, laboratory, engineering workshop, etc. In Bihar, the agricultural graduates trained at these colleges are to eventually replace the Block Development Officers as Agriculture Extension Officers during the Fourth Plan.

There are Agricultural Schools in all the districts except in Dhanbad.

These schools are meant to be training centres for village level workers who are to work in the Blocks. Dhanbad sends its students either to Hazaribagh or Chaibasa. These schools offer an in-service training programme with a course in Extension Work for one year. A recent survey reveals that the number of trainees presently is as follows:

Institution	*Total Strength*	*Christians*	*Tribals*
Kanke (Ranchi)	42	13	13
Daltonganj (Palamau)	100	—	—
Rasulinganj (Hazaribagh)	50	—	—
Chaibasa (Singhbhum)	100	18	18
Dumka (Santal Parganas)	100	2	2

Since the introduction of the I.A.D.P., the blocks selected for these schemes will each require 20 additional village level workers and, in this connection, these agricultural schools are likely to provide for the growing requirements in qualified personnel.

Established in 1959, the Central Training Institute, Brambay (Ranchi) provides a one year refresher course in Agriculture Extension work for Village Level Workers already working in Development Blocks. During 1965-66 there were 119 students from all over Chotanagpur and the Santal Parganas.

More recently a basic knowledge of agriculture is also being imparted in the so called Basic Training Schools for teachers. It is hoped that the trainees, once they leave the school, will spread their knowledge among the villagers. In these schools the trainees are taught the proper use of chemical fertilizers, gardening, poultry keeping, weaving, etc as side subjects. There are as many as 37 training institutions of this kind in Chotanagpur. 13 in Ranchi, 6 in Hazaribagh, 4 in Palamau, 4 in Singhbhum, 8 in the Santal Parganas, and 2 in Dhanbad

26. Administrative Organization:

The execution of the agricultural programme on the plateau is carried out through the C.D., T.D. or Package Programme blocks and their district-wise distribution is as follows:

District	*C.D.*	*T.D.*	*Package*
Hazaribagh	42	—	—
Ranchi	43	28	26
Palamau	25	3	—
Singhbhum	32	15	—
Dhanbad	10	—	—
	152	46	26

There are 10 village level workers in each normal Block and 20 in the Package Blocks, under the administrative control of a Block Development Officer with a Subdivisional Officer at the Subdivisional level, a District Development Officer at the District level, and a Regional Development Officer at the Commissioner's level. The technical guidance for the execution of the programmes is provied by the Agricultural Extension Supervisors at the Block level, the Subdivisional Agricultural Officer at the Subdivisional level, the District Agricultural Officer at the District level, and the Deputy Director of Agriculture at the range level. The village level workers are assigned multifarious jobs relating to different development departments: agriculture, minor irrigation, fisheries, co-operation and animal husbandry development, besides being in charge of relief, supplies and election work at times when these are necessary. The programmes relating to agricultural development are handled by independent departments of agriculture, animal husbandry, minor irrigation, fisheries, co-operation and revenue, under the charge of officers of the departments concerned, at the various levels.

27. Adoption of Improved Practices:

While trying to analyse the difficulties in the adoption of improved agricultural practices by farmers on the plateau, it has been found that there are generally three categories of cultivators. They may roughly be divided into i) the rejectors; ii) the adopters; iii) the reverters.

The rejectors are those who regard with the improved practices suspicion and consider them alien to their accepted traditional methods. Such cultivators after trying out new practices and weighing the pros and cons reject them altogether.

The adopters are, generally, progressive young farmers who are not so hide-bound by tradition and, who are eager to improve their living conditions by better incomes through farming. They adopt a new system after they are effectively convinced of the advantages accuring from it.

The reverters are those adopters who, after being unable to obtain the necessary imputs in time, have perforce to part with the practices once adopted by them.

Any improved practice which is to be adopted must necessarily be one which fits in with the habits, convenience and economic conditions of the cultivators. A habit and way of life which has been built up through the generations can only be changed through the passage of the period during which it has been formed. The general assumption that cultivators are conservative and backward no longer holds good in Chotanagpur. By and large, most cultivators on the plateau regions are very forward and amenable to change once they see and believe that there are no undue risks involved in the new practices which are supposed to prove beneficial to them. In this connection, it is well to remember that most of the practices being followed by them have been adopted after years of trial and error, and it would be

unwise, therefore, to expect them to discard existing techniques altogether and to accept new methods overnight. Successful demonstrations and repeated extension work are the only means of convincing them of this.

28. Living Conditions of the Farmers:

In the context of the development activities currently taking place on the plateau, it is important to know how the people, who are predominantly farmers, live; their levels of income, housing conditions, and indebtedness have to be assessed before any concrete plans for their economic development can be drawn up.

Almost 100% of the farmers, houses are built of mud. In the Santal Parganas, Hazaribagh and parts of Singhbhum, the roofs of their houses are made of grass. In Ranchi, Dhanbad and Palamau earthen tiles are commonly used. Generally speaking, houses of Christian tribals are cleaner than those of the non-Christians. In the Santal Parganas, Singhbhum and Dhanbad, the mud houses in the villages are clean and even decorated with artistic paintings. These houses have neither toilet nor any other sanitary facilities.

II. THE CHURCH AND AGRICULTURE IN CHOTANAGPUR

1. *Introduction:*

The educational and charitable activities of the Christian Churches in Chotanagpur are well known. They have contributed handsomely to the country's cultural, social and economic development. In the following section of this Chapter, we are principally concerned with agricultural programmes organized or inspired by Christians, which have as their direct aim the solution of some of the agricultural problems confronting the plateau. Our information regarding Christian voluntary effort to increase food production and promote economic development, is largely based on the enquiries we have ourselves recently conducted in this area. With a few exceptions, the projects studied are mainly under Roman Catholic auspices.

In the past, many missionaries from farming families have transmitted to their people advanced methods of farming and guided them with new methods of food production. The more organized and systematic contribution of the Church to solve the agricultural problem is, however, of a relatively recent origin. Priests and laymen, who have undergone specialised training either in India or abroad, have launched programmes of agricultural development. Others, without any specific training, under the sheer pressure of necessity, have proved themselves pioneers in agricultural and other community development works.

The agricultural schemes undertaken by the Church aim at increasing the overall output of lands already under cultivation, by teachin ' new

farming methods, by greater and more intelligent use of organic manures and chemical fertilizers, high yielding varieties of seeds, minor and medium irrigation, the introduction of new crops in single cropped areas, and other intensive farming methods. During our enquiry, 38 Church related agricultural development projects and a few agricultural training schemes have been studied. These projects covered an area of about 6,536 acres of land. Out of these 2,668 acres are currently under Agricultural Extension Schemes, and the rest under intensive agricultural schemes of various types. All these projects are concentrated in the Ranchi district, except one in Santal Parganas and another in Palamau. Besides, some demonstration cum production farms are run by the Church to teach people, in a practical and direct way, new methods of cultivation. There are four such farms, covering an area of 84 acres.

Out of the 12,969 beneficiaries covered by the projects under study, 59.6% own between 3 and 5 acres, 19.5% between 1-3 acres of land, and 14.7% beneficiaries between 6-10 acres. The remaining 16% of the beneficiaries have over 10 acres. The average size of the holdings of the Catholic farmers, therefore, is more or less the same as that of the other people living in the area. Besides, more than half of the cultivated lands are either uplands or cultivable wastes.

In the Ranchi Archdiocese about 1,382 acres of cultivable land belong to various parishes, and in the Dumka diocese, only 22 acres. Bhagalpur (part of the diocese in Santal Parganas) and Jamshedpur Dioceses, have practically no land to cultivate. In the Santal Parganas and Jamshedpur, the main problem in acquiring land by Church institutions is that of getting the necessary permission from the government authorities. The main crops produced by church-related projects are Gora paddy (autumn rice), maize, maruwa (ragi), winter paddy, potato, oilseeds, jowar, groundnuts, taichung native I rice, wheat etc. During the 1966-67 agricultural season, it was reported that 54.4% of the total cropped area of church related projects was covered by gora paddy, 40.2% by winter paddy, 1.2% by maize and 3.1% by potatoes and groundnuts. Wheat and other crops covered only 0.2% of the total cropped areas.

During the 1967-68 agricultural year, maruwa and jowar crops were also introduced in the cropping pattern. A few bags of Taichung Native I (paddy) were also distributed to farmers, and have been successfully grown in their fields. In general, there is not much difference between the cropping pattern of Christians and that of the average non-Christian farmers in the area. However, in a few regions, Catholics are going in increasingly for the cultivation of cash crops such as potatoes, groundnuts, vegetables, etc. This is evident from the fact that the acreage devoted to these crops has increased from 50 acres in 1965-66 to 285 acres in 1966-67 and it is estimated that another 50 acres or more of land will be covered by these crops during 1967-68. Due to the lack of irrigation facilities, rabi cultivation has not yet made any substantial progress. Even so, 552 maunds of potato seeds were distributed to the farmers during the 1966-67 rabi season. Wheat has

also been cultivated in some parishes, though not extensively.

2. Chotanagpur Cooperative Credit Society

Before, looking into the agricultural developmental activities, under Church auspices, in Chotanagpur and particularly in Ranchi district, the Chotanagpur Cooperative Credit Society deserves mention. By and large this society has so far been the chief factor supporting agricultural development work undertaken in Chotanagpur by the Catholic Church.

Brief History: The Society was established in 1909 primarily through the efforts of a German Jesuit. Its growth was slow in the initial stages since literacy was low, and the confidence of the villagers had to be gradually won. The policy was to loan funds to members only. However, occasionally in the early stages, surplus funds were made available to non-members, primarily to businessmen of Ranchi who were, generally speaking, outside the influence and discipline of the society. These borrowers were not always honest and many difficulties were encountered in attempting to recover the loans. Fortunately, investments were made in Ranchi real estate during the same period, and the losses from the loans, therefore, will now be offset by the rise in land values resulting from recent industrial expansion in the area. Articles have already appeared in Indian journals like Social Action, etc, on the importance and the growing success of this particular Rural Credit Cooperative. Here, therefore we shall only attempt to give some data about what is perhaps the most outstanding direct contribution of the Church to the socio-economic uplift of the people of Chotanagpur.

Aims: The Society was adapted to the special circumstances of the people of the region who were poor, backward, illiterate and often a prey to village moneylenders, mahajans and banias. The rates of interest charged by the moneylending class was as high as 50 to 100%. Very often, finding it difficult to pay back the loans, the people had to mortgage their lands.

The Society was started to meet an essential felt-need of the area, to encourage savings among the rural populace of Chotanagpur and to provide *a source of loans, at reasonable rates of interest, for Tribal Catholics.* Its present aim is to encourage thrift, assist in building mutual confidence among the members, and to strengthen communal solidarity.

The Society has some interesting features: the services it provides for, and by the tribals, its organization and structure and its operating policies and possibilities for additional services to the tribal community.

Organization: The Society has been organized in the following manner:

1) At the base are the Rural Units, comprising one or more villages. At present there are 926 such units. Each unit has a Managing Committee, the members being the same as the panches of the private

panchayat of the Church. The members of these committees are the first to accept and sift the requests for loans made by intending borrowers. The confidence placed on the Managing Committee in this task, provides the basic strength of the Society.

2) The Rural Units are federated into groups known as Circles of which there are 49 at present. Each Circle is administered by an Assistant Director, who is also the Parish Priest by law. Approximately more than half of these Assistant Directors are tribal priests. The 'Munshi' or Secretary of the Circle receives half his pay from the Society, his job being a part-time one in most of the Circles.

3) The General Assembly consisting of the members from the different circles meets annually. It has the legislative power to determine policies under the Bihar State Cooperative-Act and its bye-laws.

4) The Managing Committee (Board of Directors) of the Society consists of 49 lay adivasis, one selected from each circle, and the Managing Director, Vice-Director and Chairman and Secretary of the General Assembly. The lay adivasi members are elected for 3 years, and may be *re-elected.* The committee meets twice every year at Gumla, which is near to, or considered to be the centre of, the Catholic population of Chotanagpur.

5) At the head of the central office, with which all the circles are connected, is the President of the Society, His Grace, the Archbishop of Ranchi. It is he who appoints the Director who is in charge of the central office, as also Assistant Directors in charge of the different circles.

Besides this organization, there is an Advisory Board to advise the Managing Director, composed of four priests and four lay persons, appointed by the Bishop, and this body too, normally meets twice a year.

Membership: Membership of the Society has been limited to the people of the Catholic Church of Ranchi Archdiocese. The bye-laws require that membership be limited to tribal or adivasi Catholics. Each member pays a fee of Rs. 0.50 n.p. to join, and also buys a share of Rs. 3/-. He can apply for a loan 6 months after joining the Society. Only one member from each joint family can join the society, since the society is of unlimited liability, and the ultimate security against a loan is the income of the family or the land.

Present Situation: Data available on membership show 8,630 members in 1913, 17,413 in 1929, 25,791 in 1961, 31,420 in 1965 and 35,322 in 1966. At present the society has 49 circles with 926 Rural Units serving nearly all the Catholic families of the Ranchi Archdiocese.

Loans made by the Society during the last 10 years have recorded

spectacular progress. Rs. 1,37,170 was distributed to 682 members 1955-56; Rs. 11,87,234 was similarly distributed to 6,429 members 1964-65; and a sum of Rs. 1680712 was advanced to 7,136 memb during 1965-66.

The following chart shows the percentages of loans given for differ purposes during 1964-65 and 1965-66.

		1964-65	1965-
1.	Purchase of cattle	20	18
2.	Purchase of land	27	15
3.	Cultivation expenses	22	21
4.	Redemption of land	12	9
5.	Maintenance	4.5	25
6.	House repair	3.5	2
7.	Payment of debt	1	1
8.	Wells	1	1
9.	Litigation	1	1
10.	Marriage expense	—	—
11.	Other purposes	—	—
12.	Trade	1	1
13.	Improvement of land	7	6
	Total	100	100

From this table, it is clear that over 75% of the total loans are made f direct agricultural purposes. More recently, the Society has become i creasingly concerned with agricultural development activities. At prese more than 18 agricultural extension centres in different parishes have be started. These extension services are now no more under the direct re ponsibility of the bank, but form part of a separate agricultural extensio department which has been started with a full-time priest at its head. O lay man, trained in Extension Work, is employed by the Bank. There a as may as 5 godowns built by the bank for storing fertilisers, seeds, et for agricultural developmental purposes, one in Ranchi, and four in oth parishes.

Of late, the society has directly sponsored and financed agricultur development and training programmes in the Ranchi Archdiocese. the Agricultural Training Centre, Namkum, some 50 trainees are pai stipends from the society at a yearly cost of Rs. 30,000/-. This Centre trai Agricultural Advisers for the Extension Work promoted by the Society. Th Lohardaga Adult Education Course also receives some financial assistanc from the Society. The agricultural extension schemes started by th Society will be discussed separately, later in this Chapter.

During 1964-65, and in 1965-66, Rs. 30,16,001/- and Rs. 41,32,400 were put at the disposal of the bank members respectively. During 1964-6

the loans taken were recorded as only 39.3% of the total disposable amount. In the following year however, (1965-66) the percentage of loans taken increased to 40.6% of the total disposable amount. This indicates that members are yet to be taught and induced to make fuller use of the loans provided by the society. It is expected that the number of loans applied for will substantially increase when the Agricultural Extension Work, promoted by the Society, will spread and become more widely operational.

3. Increasing the Output per Acre and the Area under Cultivation

In order to feed the growing population of Chotanagpur, food production has to be substantially increased in this area. This can be done either by extensive or intensive cultivation, or both. There is little room for extensive cultivation in Chotanagpur due to the general topography of the land which has been described in detail in the opening pages of this Chapter. The production of food grains has to be increased, therefore, principally by enhancing the yields per acre by intensive methods of cultivation: irrigation, the greater application of organic manures, chemical fertilizers, improved seeds etc. Double cropping practices also need, as far as possible, to be adopted. In addition, there are many areas of cultivable waste lands which can still be reclaimed. Along with the efforts so far made by the Government in this direction, the Church in Chotanagpur too, has contributed in some of these respects to the agricultural development of the area.

A. Minor irrigation Schemes

One of the major determining factors of agricultural productivity in Chotanagpur, as well as in other parts of Bihar, is rain. This is apparent from what has already been said in the opening section of this Chapter on the annual rainfall experienced on the plateau. Though Chotanagpur gets more rain than Bihar as a whole, because of the rocky nature of its soil and the unevenness of its surface, irrigation on a wide or a large scale is altogether very difficult. For the vast majority of farmers in the area, the monsoon is the only source of water. With the lack of other irrigation facilities and general ignorance about modern agricultural practices, most cultivators only expect one crop a year and even this is not always a good one. The periodic uncertainty of a well distributed monsoon has now sharply brought into focus, the importance of using other sources of irrigation for successful crop raising. There are a large number of rivers, streams and rivulets in the region; most of these, however, dry up at a time when the area needs the water from them for irrigation. If these rivulets could be dammed and the water from them canalised, thousands of acres of dry, infertile land could be turned into fertile fields. The Church is not equipped to build large dams which require both considerable financial outlay, and also a sophisticated degree of planning and engineering skill. The construction of these would have to be undertaken largely by the State Government though, in fact, where they have undertaken some large schemes of this type they have not always met with an appreciable degree of success. What

the Church, and other voluntary agencies, with their limited resources could do, is to multiply, all over the plateau, the number of small earth dams, embankments, wells and tanks, and lay down a greater number of pipelines from these to the fields. That this can be successfully accomplished, has been adequately proved in most places where the Church is at present engaged in building tanks and small dams, in digging wells, etc. through "food for work" and other similar programmes.

1 Banabira

Banabira is a very good example of this. It is a parish of Ranchi Archdiocese, situated in the Simdega subdivision of Ranchi district, 18 miles *south of Simdega on the Simdega-Kurdeg Railway line. It forms a part* of the Simdega Block, and has a Christian population of about 6,000 people. Practically all the Christians of the area are aboriginals. Though the area is not very suitable for cultivation, nearly 96% of the people are dependent upon agriculture for their livelihood.

Only about 40% of the geographical area of this parish is, however, under actual cultivation and, of this, 60% is under rice. The rest of the land is hilly, rocky, or covered by forests. Due to the unevenness of the soil, thousands of streams and rivulets run down the slopes of the hills during the rainy season. These streams and rivulets provide excellent irrigation potential and can provide adequate water for the rabi or winter crops.

In 1963, the parish priest, awaae of this possibility, applied to Misereor for substantial financial aid to build small dams on these rivulets and streams, at 12 different places, so that water could be stored and, by means of concrete pipes channelled to the surrounding fields.

The requested financial assistance was sanctioned by Misereor in 1964. A lay brother from the Church was thereafter appointed to execute the programme with the help of an Australian engineer from the A.T.C. at Namkum. The area in question was examined, and detailed plans were drawn up for these dams.

By December 1966, three of these dams were completed and commissioned, two at Laseya village and one at Khizridih, and during the 1966 crop season, about 600 acres of cultivable lands were brought under irrigation, benefiting about 300 families.

Working of the Project: As a part of this irrigation project, the parishioners are first asked to submit their respective schemes and after a careful examination has been made of their plans, the required money is sanctioned.

The beneficiaries receive food supplies in the form of "food for work", and themselves dam the rivulets and fit the concrete pipes partly by their

voluntary labour and partly for cash and food payment under the supervision of the lay brother incharge of field operations.

Once the dams are completed, the recurring expenses are negligible. The beneficiaries look after the dams and repair them if and when necessary. The families that benefit under the scheme undertake the required maintenance and repair work on a purely voluntary basis.

Since the low lands in this area are too few to meet the total food requirements of the people, it is necessary that more uplands and terraced lands be brought under cultivation. This can only be possible when more water is made available for irrigation. Due to the rocky character of the soil and the undulating nature of the land, the sinking of wells is often difficult and expensive. The only alternative, therefore, is to dam small rivulets and to channel or pump the stored water towards the upland fields. The Banbaria project illustrates this and reveals how a small investment can yield very good results.

2) **Majhatoli**

Majhatoli is another parish situated in a hilly area of Chotanagpur, in the Gumla subdivision of Ranchi district. In this region, as in other parts of Chotanagpur, much depends upon the monsoon, Here. as in Banabira, another minor irrigation project has been commissioned by the local parish.

In this particular scheme, an area of about 100 acres has been chosen situated on the side of Jaspur Road near the parish centre. More than 75% of the lands to be irrigated belong to the local people, while the rest is owned by the parish itself.

Two sources of water are available here. The first consists of a perennial spring on the top of a hill, which provides water the whole year round. This source alone is not, however, sufficient to irrigate the 100 acres of land near it. At most, it might suffice for 10 acres. The second source consists of a stream which holds water until the end of the hot season. It is situated on the side of the land, and is adjacent to the cultivable area. The original plan, in this project was to construct two small dams at both these sources to provide adequate irrigation for both rabi and kharif crops on the 100 acres.

With a liberal and helpful financial grant from Misereor in 1964, a plan for building dams, tanks and wells in the area was worked out. However, the proposed construction of the dam on the stream was not undertaken, since it was felt that it would be far too expensive. Instead, two wells were dug in the river beds and cemented iron rings were used to keep the sides of these wells from capsizing. The project's present target of constructing 4 similar wells has not yet, however, been achieved because of the difficulty experienced in digging wells in loose sandy soil. Attempts

have been made to dig wells in other places nearby, but these too have not achieved much success.

A tank has, nevertheless, been excavated at the top of the stream, and the water stored in it has been utilized to irrigate 8 acres of paddy land. This year (1967-68) preparations are already under way for planting of summer paddy. Two pumps have been purchased and are currently being utilised to irrigate from the two wells constructed in the river beds and the tank. A couple of small dams too have been completed in two different villages, one in Mandar and another in Tulmunga. Both dams are being used for irrigation with the help of pumping sets.

Diesel pumps have also been purchased from the Block at subsidised rates of Rs. 3,500/-each. These pumps are used by the people at a nominal charge merely covering actual running expenses incurred when used in irrigating their fields. The equipment is under the personal supervision of the parish Kamdars, who also supervise the general working of the scheme.

Although during the current agricultural year, all the 100 acres originally included in this scheme will not be irrigated, quite a sizable tract of land will be provided with irrigation, both for summer paddy and for kharif crops. The tank will provide irrigation for 8 acres of summer paddy and the 2 wells for about 4 acres, and the 2 dams for about 10 acres of kharif crop each. During the current rabi season (1968), a good amount of land is expected to be irrigated for Bajra, vegetables, wheat etc.

Financial Management: Of the total amount donated by Misereor for this particular project, some money has been kept in abeyance for subsequent utilization as soon as suitable sites are found for the construction of small dams etc. The running expenses incurred in operating the pumps are paid to the parish Kamdar by the beneficiaries who utilize them and this amounts to approximately Rs. 10/- per day. The money thus collected is used for purchasing fuel and for normal maintenance and repairs of the pumps. The problem of recurring expenses for small irrigation schemes such as wells, tanks and dams does not, therefore, arise. The maintenance of these projects, which are small in size, is usually done by the voluntary labour of the beneficiaries wherever required.

The money sanctioned by Misereor was enough for the proposed scheme. More wells, however, could not be dug in the river beds due to the fact that cement, iron rings etc. were required and the purchase of these involved extra expenditure and time. The project authorities feel, nevertheless, that if more pump sets could be made available, a greater area of land could be brought under irrigation. It is clear though, that the Church sponsored schemes at this place, are more successful than other similar programmes of this kind initiated by the government in the region.

A welcome change is evident in that the local people are [illegible]

taking their own self-help minor irrigation schemes in their villages, through "food for work" programmes. In two villages, two beneficiaries have purchased their own pumps from the Block. Local Kamdars too, are becoming more conscious of their duty in guiding the people in agricultural development.

3) Lachragarh

In Lachragarh, a tank is under construction on an area of 1½ acres of land near the parish centre. This scheme is estimated to cost Rs. 10,000/- and is being undertaken in collaboration with the Block Development authorities. The uplands amounting to about 6½ acres around the proposed tank, belong to the parish and will be utilised for a demonstration cum seed multiplication farm. It is estimated that 400 acres of land belonging to 50 families, will be irrigated under this project. The tank will also be used for fish breeding.

Since, the productivity of crops depends largely upon the quality of seeds sown, the supply of good quality and hybrid varieties of seeds is considered absolutely necessary. The seed multiplication farm planned under this scheme seeks to supply the improved seeds to the farmers so as to enable them to raise their yields.

Along with this, there are 3 more tanks being dug in different villages in the area, partly for irrigation purposes and partly to rear fish. More than 70% of the beneficiaries are Tribal Catholics having land between 3 and 5 acres per family.

4) Jitutoli

Not unlike the Lachragarh project, the Jitutoli scheme is also concerned with the excavation of a tank. This project was started in 1966 by the local parish priest, on an acre of land primarily belonging to the parish. The estimated cost of the project is about Rs. 20,000/- towards which the Block Development Centre in the region has contributed approximately Rs. 4,900/-. The rest of the expenditure is to be met by the parish. About 10 families will directly benefit from the project. Both paddy and wheat cultivation, for demonstration cum seed multiplication purposes, have already been started. The project includes breeding fish of improved varieties and distributing these to people interested in inland fisheries schemes. It is still in the construction stage, therefore it is too early to gauge its success.

5) Kanji Reservoir Project, Rajawal

Before receiving a financial grant from Caritas Internationalis in 1961, the people themselves had started reclaiming the barren fields in the upland areas of about 500 acres, under the guidance of the parish priest. The work was done partly by the voluntary labour of the beneficiaries and partly

with the help of the Block. Crops had never been raised before from these fields.

There was a river running by the side of these fields, which could benefit the area, provided an embankment could be constructed there. Ultimately, with the grant received, an embankment about 1,000 ft. long and about 17ft. high was completed. Subsequently, long canals have been dug to channel the water thus stored, to the fields. At present the scheme is irrigating about 500 acres of land both for Kharif and Rabi crops and is currently serving about 85 families.

However, during summer, when the water level in the dam recedes, irrigation by canals becomes a problem. It has, therefore, been suggested by the parish priest that the people purchase two or three diesel pumps on their own from the Block and utilize these in brirnging the water up to the required level during the dry season.

6) Torpa and Mangra

Lift irrigation schemes too are rapidly developing under Church auspices. In Torpa a selfhelp scheme was inaugurated in 1965 as a pilot project, by 10 families. A single diesel pump was purchased collectively and fitted into a small water reservoir. Irrigation for rabi crops started in 1966. Because of the lack of cooperation among the people, however, this project was not so successful.

In Mangra (Santal Parganas) another scheme of the same type was started during 1966 initially in the form of land reclamation of 100 acres of fallow with a substantial gift of money from the C.R.S. Out of this a pump was purchased from the Block. Some financial help from the Block was also received for the construction of 2 wells and a tank.

By the end of March 1966, further financial assistance came from Misereor and 4 tanks and 3 wells were completed. Two additional diesel pumps were acquired from the Block during the same period. By the end of the same year, the project started functioning to its full capacity. Of the 100 families benefiting from it, 90% are Non-Christian and 10% are Catholic Tribals.

B. Tractor Project, Ulathu

In 1964, with financial aid from Caritas, a tractor was bought by the parish of Ulathu, 10 miles away from Ranchi. The scheme consists in hiring out the tractor to plough the fields of the local people. The beneficiaries pay Rs. 50/- per day for the service (2½ acres can be ploughed a day, and this is equivalent to 5 ploughings by 5 wooden ploughs in 5 days). Due to transport difficulties the scheme is presently geared to make the tractor available only to the people of the parish, particularly those living within a radius of about 10 miles. It was originally estimated that 700

families, both Catholics and non-Catholics could benefit from it. However, only 6 families have so far taken advantage of it: 3 for ploughing, and 3 for hauling. It is felt that most of the people this scheme was designed to help cannot pay for the running expenses. So far, therefore, the tractor is used mostly within the parish and is occupied mainly in ploughing the mission lands.

C. Cooperative Joint Farming, Tongo

Yet another project in the joint farming sphere was started in 1964 by the parish priest, then resident in Tongo. The scheme consisted primarily in educating farmers in the correct use of chemical fertilizers on their fields. It was originally started in 5 villages around the parish. Cotton was the first cash crop chosen under this scheme, and was grown on more than 65 acres of land. The crop benefited about 300 families, 95% of whom were Tribal Catholics. During 1965, the total loans made for the purchase of fertilizers, seeds, etc. amounted to Rs. 10,500/-.

The total area sought to be covered under this scheme during 1965 was estimated to be about 100 acres, but due to the uneven distribution of rain, scarcely 30 acres of land were brought under cotton cultivation and the overall production was very poor.

Consequently, the programme of growing cotton was dropped, partly because rain was not sufficient for the crops and partly because the demand for foodgrains was more pressing than that for home made clothes (khadi).

From 1966 onwards, cotton production, therefore, was replaced by other crops such as gora paddy, groundnuts, maize and sugarcane. During the 1966-67 season about 64 acres were devoted to these crops, benefiting about 35 families. However, the returns obtained from the production of gora paddy and groundnuts merely covered the total value of the investments made on these crops. This project has revealed that the attitude of the people towards cooperative farming is often very reserved and sometimes even suspicious. During the current year, therefore, the project has devoted increasing attention to oridinary agricultural extension schemes, and these are now more popular than the joint cooperative farming venture.

D. Mahuadanr Rural Development Project

The Mahuadanr Rural Development Project has been sponsored by Indian Aid, an Australian Organization to assist developing countries both in money and personnel. Basically the scheme seeks to improve the agricultural output and rural living standards of about 36,000 farmers living in the Chechari valley of Palamau District.

This project seeks to achieve the following objectives:

a) To teach the local farmers better, more scientific and intensive agricultural practices.

b) To help them financially.

c) To maintain full time specialists fully trained in their jobs, to educate farmers in the use of high yielding seed varieties, fertilizers, etc.

d) To supply cultivators with alternative employment in their homes such as cottage industries.

e) Finally, to build a clinic/hospital with mobile medical units attached to it, to look after the health needs of the people in the valley.

With all these objectives in view, the whole project has been divided into six closely allied and interlinked phases of development. At present it is in the first stage: 15 acres of parish land attached to the mission, have been levelled and prepared for a demonstration cum-seed multiplication farm. A tank is also being dug for irrigation purposes. Two Australian Indian Aid Volunteers are working on a full-time basis in this scheme, in collaboration with the local farmers.

4. Agriculture Extension Service

The main idea behind the Block Development Scheme has been to initiate an all round development of the rural economy. Due to the lack of proper communication between the Block authorities and the farmers, however, the aims of this programme have not been fully realized. Nevertheless, the Blocks have indeed effected quite a number of welcome changes in the agricultural practices of the plateau, and this is evident from the fact that the use of fertilizers by the farmers has increased from 1381 tons in 1955, to about 21,385 tons during 1965. The land brought under improved methods of cultivation too, has increased from 147,354.37 acres during 1961-62 to 238,687.45 acres during 1964-65. Similarly, the area under green manuring has likewise been enhanced from 152,316 acres in 1961-62, to 178,246 acres in 1964-65. The distribution of improved seeds also increased by 4% in the last five years, i.e. from 80,606 maunds in 1961-62 to 85,778 maunds in 1964-65. One of the most pertinent reasons advanced as to why they were less interested in the use of chemical fertilizers in the early years, was given by village leaders as being due to the fact that there was insufficient field guidance on correct fertilizer usage with the result that these were frequently used in the incorrect proportions, and at a wrong time and place and, consequently, did more harm than good.

To supplement and strengthen the Block Development Schemes in the field of agricultural development in Chotanagpur, the Church started Agricultural Extension Schemes, with the help of the Chotanagpur Cooperative Credit Society and other interested voluntary agencies.

The idea behind the Extension Schemes sponsored by the Church is not to counteract the Blocks' activities in any way, but to help Bank members, who are also farmers by occupation, to produce more food with the application of improved seeds, chemical fertilizers and better methods of cultivation.

At present there are 14 Agricultural Extension Centres sponsored by the Chotanagpur Cooperative Credit Society in the Ranchi Archdiocese. These schemes were started in 1964-65 with the pioneering efforts at Majhatoli, Lohardaga and four other parishes. The Extension Centres help local farmers to obtain chemical fertilizers and seeds in time of need. Since this requires adequate planning and foresight, a Secretary to the Extension Department of the Chotanagpur Cooperative Credit Society was appointed in 1964 and the appointee was given the right of inspection of all the Agricultural Extension Centres. Currently, the functions and management of the Extension Department have been separated from those of the Bank and the farming side has now been put under the charge of a full time priest.

There are altogether 47 Kamdars (V.L.Ws) appointed by the Bank for the different extension centres. Several centres have men in training at the A.T.C., Namkum. In other places, recruitment is still going on. Most of the appointed Kamdars are trained either in Government Agricultural Schools or at the Agricultural Training Centre, Namkum. These Extension Workers educate and guide the farmers generally on improved methods of cultivaton.

We have already mentioned that the Credit Bank is the main force behind this Extension Work in the Ranchi Archdiocese. The Bank acquires chemical fertilizers, pesticides and also improved agricultural implements from interested sources such as Misereor, OXFAM, etc. both as donations and as loans. These materials, as also the equipments obtained, are then made available to the different Extension Centres on demand. Usually, the chemical fertilizers, and improved seeds are distributed among farmers on a short term loan basis. These loans are subsequently recovered in cash after each harvest.

Godowns have been constructed at the centre (Ranchi) as well as in the parishes where Agricultural Extension Services are carried out. These godowns have been financed with the help of separate agencies and by the Bank through its own development fund.

Fully alive to the fact that no progress is possible without the dissemination of scientific knowledge and technical knowhow, the Chotanagpur Cooperative Credit Society has made its contribution, in various ways, also in this field. This has been done firstly through the distribution of proper literature, to the different bank units." "Unat Krishi", one such pamphlet put out by the Society, contains valuable information on improved methods of cultivation and is widely read and discussed in the village panchayats. The society has also published a very useful brochure prepared by the Agricultural Adviser at Majhatoli.

The success or otherwise of the Extension Schemes depends very largely on the local Kamdars. If the local Kamdars, besides being competent are also familiar with local conditions and existing cultivation methods,

customs, language, land measurement etc, they easily gain the confidence of the farmers. It is only then that they are able to convince the cultivators on the need for using chemical fertilizers, etc. A study of the working of these extension centres has, however, revealed that the Kamdars are often inadequately trained and that they are too few in number in relation to the widespread areas they are called upon to serve.

The following chart, however, shows the progress achieved so far, by the Extension Centres in the Ranchi Archdiocese:

	1965-66	1966-67
1. Area under improved methods of cultivation (in acres)	2,668.33	1,750
2. Number of Farmers' family benefitted	5,247	3,247
3. Amount of fertilizers given (in tons)	421.90	290
4. Number of Kamdars	25	47

The figures appear interesting in themselves in that the ones for 1966-67 show a decrease in fertilizers used. This is primarily due to the fact that fertilizers were not readily available in the market. In addition, the lack of rain, discouraged farmers from purchasing chemicals. The area under improved cultivation has also declined during this period, presumably because of the famine conditions prevailing in Bihar at that time. During the current year, 1967-68, the total amount of fertilizers supplied has already shown an increase to 775 tons. It is also expected that Rs. 10 lakhs will be invested for this purpose during 1967-68, Rs. 15 lakhs in 1968-69 and Rs. 30/- lakhs in 1969-70. More Kamdars are also being trained at the A.T.C. Namkum, to man the Agricultural Extension Schemes.

During the 1966-67 season, potato seeds, Taichung native I (paddy) maize and groundnuts seeds were supplied to the centres for distribution to the farmers. These new crops covered an area of 89 acres in the Ranchi Archdiocese. In Majhatoli and Lohardaga, the Extension Schemes have been closely related to other larger projects comprising provision of irrigation facilities, adult education programmes etc.

Generally speaking, the Extension Services have proved very beneficial. In Church related Agricultural Extension Projects, by the end of the 1966-67 agricultural year, there has been an additional increase of 21,961 maunds of grain over the usual production level of the area. The number of Catholic farmers, who practised improved methods of cultivation, has also increased in the last two years. The Extension Schemes have also, by and large, contributed to a gigantic increase in the use of chemical fertilizers among the people. This is further borne out by the fact that during 1966-67 the actual supply of chemical fertilizers could not meet the overall demand.

Most of the Extension Centres are currently facing the problem of adequately storing fertilizers and other materials required, for want of godown facilities. So far only 3 Centres have godowns which have been built with the help of Misereor and the Bank. In Mahugaon, one big godown with a capacity of about 2,000 maunds has been built by the Catholic farmers there themselves.

Transportation presents yet another great problem for most of these centres. Many centres like Jitutoli, Gangutoli, Kurdeg, Banabira, Samsera etc. cannot easily move the fertilizers from the Ranchi central office, and those which are on the main lines of communication are at a distinct advantage and they progress much faster.

A lot of hope has been pinned on the future development of this experiment in agricultural extension in the area. More Kamdars are being trained at the A.T.C. Namkum, and the people themselves are becoming increasingly convinced of the need for chemicals, improved seeds, wells, tanks and other minor irrigation facilities which are presently under construction in the whole of the Ranchi Archdiocese.

The Majhatoli and Lohardaga Parishes in particular have made tremendous headway in this direction with their different approaches to the same problems.

A. Majhatoli:

Majhatoli is situated in a hilly area of Chotanagpur, in the Gumla subdivision of the Ranchi District. It has a population of about 14,000 of which 6,000 are Catholics and 2,000 are Lutherans. All these people are farmers holding between 2 to 20 acres of land, the average holding being 3 to 5 acres.

According to a survey carried out by the parish priest during 1964-65 25% of the Catholic population get enough food to feed their families (an average of six persons per family) for about only 4 months, 50% for a period of 4 to 8 months, and 20% for 8 to 10 months. Only 5% get sufficient food the whole year round. Much the same applies to Lutherans and this is even more true of the other Tribals living in the area.

An Agricultural Extension Service was started during 1965 in the area, the objectives of which were to change the methods of farming by the introduction of new techniques, so as to enable the cultivating class to improve its standard of living. The scheme was also intended to create a suitable atmosphere for a real agricultural revolution which could spread from the parish to a far wider area.

The economic situation has changed substantially since the Agricultural Extension Scheme was started here. This scheme has demonstrated what professional skills and modern practices can do when applied with deter-

mination and the will to learn. After two years, the results, though limited, are already spectacular.

The scheme has a very wide organizational structure. Headed by the Chotanagpur Cooperative Credit Society, the scheme directly provides the finances and indirectly supplies the personnel and other necessary inputs required.

At the local level, the parish priest and the Chief Agricultural Adviser are the moving forces behind the entire Project. In this case, particularly, the parish priest himself being from a farming family is very deeply interested in farm operations. Much of the credit for the success of this project therefore, goes first to him for it is his knowledge and personal involvement which has been the prime factor in getting the whole project off to a good start. The Agricultural Adviser too, is a government trained Village Level Worker. He was formerly working as a V.L.W. in the Block for more than six years, and is well-acquainted with the agricultural problems of the area. In addition he has a practical as well as a theoretical knowledge of the advanced farming methods required in the local context.

In addition to these two men, there are four village Kamdars who are not formally trained, but who have received from the Chief Kamdar, some basic job orientation and field training. These young Kamdars live close to the farmers in their own villages, and supervise the extension work in the areas assigned to them.

The whole parish is divided into 4 blocks, each being under the direct supervision of one village Kamdar. The Kamdars are paid by the Bank. They guide the farmers in applying chemical fertilizers in correct doses, operating pump sets and in spraying techniques etc.

There is a large godown at the headquarters which can stock a substantial amount of fertilizers and other farm requirements. Two small subsidiary godowns have also been built, at Patratoli and Kapodih, facilitating the distribution of fertilizers to the farmers residing far from the parish centre. Sprayers, dusters etc. are also kept stocked in these godown and are used by the farmers as and when required.

Various kinds of agricultural implements are at the disposal of the Project. Amongst these are 2 tractors, 4 pumping machines and 4 sprayers. One of the tractors is utilized for the transportation of fertilizers and other necessities throughout the parish area. It is also used sometimes to plough the fields of the farmers. The other tractor is almost entirely put to use on the parish farm. Farmers pay a nominal charge for the running expenses (Rs. 40/- per day) when the tractor is used on their lands. Pump sets are also used by the farmers on payment of Rs. 10/- per day. The sprayers are put to use through the Kamdars, without payment of any hiring charges, though the pesticides used on these occasions are purchased by the farmers themselves.

Of the initial capital investment required for this project, a substantial amount was donated by Misereor. The rest of the finance required as initial investment was met by the Bank. Besides, the annual recurring and maintenance expenditure, ranging from about Rs. 8,000/- to Rs. 10,000/- which is met by the Bank, chemical fertilizers, seeds and pesticides etc. are supplied to the farmers on a short-term loan basis, and these are recovered after harvest at nominal rates of interest.

Initially, chemical fertilizers were applied to only 59 acres of paddy land. This resulted in a production of 20 to 60 maunds per acre, against an average yield of 8 to 12 maunds by conventional methods. As soon as these increases in yields became evident to the local farmers, the amount of short-term loans for fertilizers given to the people rose from Rs. 3,000/- in 1964 to Rs. 34,465.63 in 1965. It increased further to Rs. 64,047/- and Rs. 125,485/- during 1966-67 and 1967-68 respectively.

Working of the Scheme: Since the introduction of the Agricultural Extension Scheme by the Bank, agricultural short-term loans on easy terms appear to have become the key points in the whole operation. Farmers now send their applications through the village Kamdars to the Bank, indicating the area of land proposed for improved cultivation, and amount of fertilizers needed. The cooperative society supplies the fertilizers to the parish centre accordingly, though when there is a shortage of fertilizers in the bank itself, cash is loaned to the parish priest. The parish priest and the Agriculture Adviser then purchase fertilizers from the Block on behalf of the farmers. These fertilizers are subsequently distributed to the applicants so as to be available before the onset of the monsoons.

Once the fertilizers have been distributed, the village Kamdars go to the villages under their jurisdiction, to educate the farmers on the correct methods of using them. This routine is followed also for rabi crops. Scientific spraying of the crops is done by the people, time and time again, under the advice of the local Kamdars.

After the harvest, the Kamdars once again go from farmer to farmer collecting necessary statistics with regard to yield per acre, total production, investment costs etc. The data thus collected is then forwarded to the bank for evaluation, and the loans made are then recovered.

In addition to these facilities, extended by the Scheme and the advice provided by the local Kamdars and the Agricultural Adviser, monthly panchayats are presided over by the parish priest. These village meetings play an important role in mobilizing the people and making them participate actively in the working of the project.

The following chart reveals the general progress achieved by a scheme of this type, during the last 3 crop seasons.

	1965-66	1966-67	1967-68
1. Area covered (in acres)	557.83	1,076.66	1,458.11
2. Cost of fertilizers (in rupees)	34,465.63	64,047.41	125,485.70
3. Cost of improved seed (in rupees)	17,598.75	18,678.30	5,273.62
4. Families who benefit	510	831	734

Here again there has been a very marked increase in the use of chemical fertilizers. According to the parish priest, 10 years ago few of the farmers in the area had ever heard of chemical fertilizers. The figures for 1967-68 in the above chart do not cover the yields obtained under rabi cultivation.

It has now been reported by the parish priest, the local Kamdars and the village farmers themselves, that the productivity per acre of many crops has increased substantially since the introduction of this scheme. Gora production has risen from 7.8 maunds per acre, to 20.20 maunds per acre; Done paddy from 20.20 maunds to 40.28 maunds, and potato production has been enhanced nearly 3 times i.e. from 30.35 maunds to 98.20 maunds per acre. There is a widespread increase in the production of groundnuts and maize too, but comparatively speaking, these crops are still cultivated in limited amounts.

Since the beginning of the scheme, new crops such as groundnuts, maize, Taichung Native I (paddy), wheat, etc. have been introduced in the area. These crops, however, are not yet as widely cultivated as they should be, and their acceptance by the farmers is still somewhat slow and limited.

B. Lohardaga:

Lohardaga's Intensive Agriculture cum Adult Education Scheme offers a different approach to agricultural extension. In Lohardaga, agricultural knowledge is imparted to farmers in a more formal way than in Majhatoli, where farmers are trained not so much through talks and group discussions as by job orientation and field practice. The Lohardaga method requires more time and some investment in didactic materials, but in the long run it is also expected to produce more lasting results. For the present, it is too early to judge this system of extension.

The Lohardaga Scheme was started in 1964, by the parish priest, to raise the agricultural productivity, and the living standards of the local people. The Scheme has two closely interrelated aspects: Adult education, mostly in agriculture, and direct agricultural development programmes. The latter operate practically along the same lines as in Majhatoli. However, in Lohardaga there are no village Kamdars to directly guide the farmers in cultivating techniques on their own fields, but as in the case of Majhatoli, the Chotanagpur Cooperative Credit Society provides the farmers with the

necessary credit to obtain fertilizers, improved seeds, pesticides, pump sets etc.

The Scheme also makes available, to farmers, tractors for transport, haulage and for ploughing, compressors, pumps, sprayers etc. A small daily fee is charged to cover the cost of running these machines: Rs. 10 for a pump, Rs. 40 for a compressor, Rs. 50 for a tractor, etc.

During the 1966-67 crop season, about 164 acres of land were brought under improved methods of cultivation benefiting about 52 families. From April until August 1967, another 100 acres were brought under improved farming (rabi). The amount of chemical fertilizers distributed during 1966-67 season was 115 quintals. A further 88.24 quintals were distributed for the kharif crops later in 1967. During 1967, the rabi crops covered an area of about 22.50 acres.

Taichung Native I (paddy) and jowar are among the principal new crops introduced among the farmers in the area. During 1966-67 54 kg. of Taichung and 40 kgs of jowar seeds were distributed. Groundnuts, maize and wheat were not new in this area. These crops were already popular even before the introduction of this project.

Adult Education Programmes: If a project which is aimed at improving agriculture is to succeed in Chotanagpur, it will have to respect the tribal ways of life and the authority of the village panchayat. It is true that with the increasing number of graduates and educated people, the authority of the village panchayat is on the wane, but for the present, the village panchayats still wield considerable influence over the local people.

With this in mind, an action-oriented Adult Education Programme in agriculture was started in the Lohardaga parish, to train the Panches and village leaders in advanced farming methods.

Tribals are, as a rule, rather shy and sensitive to public opinion. If something new has to be introduced, it is considered better done either by the Panches themselves or with their approval.

The adult education programme started by the Parish at Lohardaga, follows a rather regular routine. The people report at the parish for a course on a Friday evening, after the weekly market is over. This is the best time for them, for it is considered that if they come before sunset they will make a round of the parish farm and the observations they make are then the topic for discussions in the evening gathering at the local market. The gathering at the parish commences its programme by discussing and outlining the following day's programme in a note-book.

The next day, before breakfast, the fields for experiment are prepared, and after breakfast, the trainees go once more through the outline made the night before, now a little more systematically and formally than they

did originally, and they apply the methods discussed immediately on the fields. The trainees are always open to suggestions, and alternative methods are also tried out if suggested to them or by them. Agricultural training and lessons are given theoretically in addition to practical demonstrations in the proper use of chemical fertilizers, pesticides, the operation of pumping machines, sprayers, weeders, etc. On Sundays the trainees receive their seeds and bags of fertilizers, together with full instructions on how best to duplicate things immediately on their own fields.

The handbook of Indian Agriculture issued by the Indian Council of Agricultural Research is widely followed by the extension teachers as a standard textbook. The notes prepared at the request of the people are merely a simplification. Sometimes the booklet prepared by the Agricultural Supervisor at Majhatoli, referred to before, is also used.

More intensive instructions are given before the commencement of each crop season. In this instance, the trainees bring with them, to the Centre, a soil sample taken from their fields which is tested and analysed and, in accordance with the findings they are advised on the right amount and kind of chemical fertilizers to be used. While in the Centre, the trainees are also provided food and shelter free of cost. By the end of 1967, 150 trainees had already been through the Centre having completed the full course.

Finances: This project is aided by the Chotanagpur Cooperative Credit Society and other aid giving agencies such as Caritas Internationis, OXFAM, etc. The foreign agencies provide grants to acquire essential agricultural implements in the shape of tractors, trailor, compressors, pumping machines etc. While the Bank provides loans and food supply to the project, each trainee gets, in addition, a sum of Rs. 10/- per month as a stipend, for 10 months during the period of the course, from the Bank. It is one of the pre-requisites of this Scheme, therefore, that each trainee should be a member of the Bank.

A considerable sum of money received from foreign agencies has been expended on buildings and implements, and the parish priest has received in addition, further sums from other sources to finance the initial investment. Pumping machines, sprayers, and other low cost instruments have been supplied by the Bank.

The salaries paid to the Extension Staff, maintenance costs, and stipends to the trainees are annually met by the Bank. During 1964-65, the loans taken by the farmers, from the Bank, amounted to about Rs. 3,000/-. This figure subsequently increased to Rs. 18,000/- during 1966-67. Loans were taken both in the form of chemical fertilizers, and improved seeds.

The charges for the use of the tractors, compressors and pumping machines, paid by the beneficiaries, are almost always expended on the repair and maintenance of the machines.

C. Majhatoli and Lohardaga Projects Compared:

Though the aim of both the Majhatoli and the Lohardaga Projects is to raise the agricultural output of their respective areas and thereby to better the living standards of the farmers by introducing modern farming methods, the approach made by the two Projects is different: In Majhatoli a more informal and direct method is followed with the object of realizing quick results, while in Lohardaga, the aim is to ensure that people learn modern methods of farming, both theoretically as well as practically, so that later they feel confident enough to continue on their own the improved farming techniques they have picked up.

From the point of view of production and concrete results, both the Projects are successful; gora paddy and done paddy were cultivated widely in both the places with good returns per acre. New crops like maize, groundnuts, jowar, wheat are also becoming popular in the cropping pattern of these areas. This is evident from the fact that a good amount of new and improved seeds are increasingly distributed among the farmers each year.

So far as the methods of operation are concerned, the Majhatoli programme seems more easy and convincing when viewed against the existing psychology of the farmers. What they actually need is not so much regular lectures as practical demonstration in their own fields. This is what is done at Majhatoli. Over there, even if the active parish priest were transferred from the area, the local Kamdars could ensure the continuity of the schemes under the supervision of a well trained Extension Officer at the Parish Centre.

In Lohardaga, on the other hand, the parish priest plays a greater role in the administration and running of the project and his transfer from the area might possibly create a problem of continuity for his Project.

In both places, however, it is apparent from what the beneficiaries say, that the agricultural loans granted should be for a period of at least one year's time under short-term loan schemes, since they have to sell their produce immediately after the harvest when the immediate post-harvest gluts are on in the local markets and prices are depressed. There is some truth in this and the Cooperative Credit Society could examine this further as well as make whatever arrangements they can for the purchase of farm produce at reasonable prices during the harvest.

Whatever may eventually be decided, it is apparent that both the Lohardaga and Majhatoli types of agricultural development schemes could be usefully and profitably applied to other regions of Chotanagpur. Both types, however, require the right men to organize and launch them, to give them the initial push and to ensure their continuity. The Majhatoli scheme being more practical and direct might find more acceptance among the farmers and produce greater and more immediate results. However, the more formal educational aspects of the Lohardaga approach are no less

important. Their full impact might be felt at a later date. At any rate, it is still too early to pass final judgement on the merits of these two different approaches to agricultural extension work.

5. Agricultural Training for Church Related Projects in Chotanagpur:

Besides the direct involvement of the Churches in concrete action programmes, the need for training the necessary lay cadres to ensure the agricultural development of the region has also received a fair amount of attention in recent years. In this, as in other fields, the efforts of government have not always been successful, though the programmes initiated through the Community Development Blocks have acted as an added incentive and challenge. The Agricultural Training Centres at Namkum and Khuntitoli are yet another expression of the Churches' concern for the socio-economic development of the people of Chotanagpur.

A. The Agriculture Training Centre, Namkum:

The A.T.C. is an institution for training students in improved methods of cultivation and efforts are being made here to disseminate new skills in agriculture, through an active extension service. The centre is owned by the Ranchi Province of the Jesuit Society, and is located in an 84 acre plot on the Ranchi-Jamshedpur Road at Namkum, about 4 miles from Ranchi town.

The school started functioning on the 15th June, 1964, with 20 boys on its rolls. During 1965 and 1966, the number of students increased to 33 and 53 respectively.

Aims of A.T.C.: The aim of this Centre is to impart knowledge in improved methods of agriculture and to change and better the agricultural conditions of Chotanagpur and its neighbouring regions. Service Extension Centres are to be set up with leaders trained at the Centre. These Extension Centres are to make the improved methods more effective and widely adopted by creating facilities:

a) for studying on a regional basis the problems associated with agriculture;

b) putting the people into contact with Development Blocks run by Government, so that the services and benefits offered by the Blocks are fruitfully utilised;

c) for making provision for soil testing and better irrigation arrangements;

d) for marketing the produce of the soil and for buying fertilizers.

The Centre believes that once these extensions are properly established, the agricultural community will be organised in such a way that cooperatives (consumers', supply, and marketing) could be started for mutual help and support amongst the farmers. The centre hopes to contribute its part in achieving this aim within the next 20 years.

At present the A.T.C. has 84 acres of land in all. The area is divided into: 15 acres of buildings, 26 acres of uplands, 28 acres of low lying lands, 7 acres under 2 tanks, 3 acres of vegetable gardens, and 5 acres of fallow land. In the uplands, depending upon the seasons, maize, gora paddy, maruwa, potatoes and pulses of various varieties are grown. The lowlands are largely devoted to various types of paddy and wheat cultivation.

Irrigation: Irrigation is provided by the two tanks in the 7 acre plot, and these are fed by underground springs. They provide adequate irrigation to the farm. An electric pump is placed only 2 furlongs from the farthest point of the uplands.

Buildings: The construction of buildings is now practically over. The Centre has a two storeyed building, the ground floor of which has provision for class rooms, auditorium, staff rooms, laboratory, director's room, office and parlour. The first floor accommodates 4 dormitories, 2 box rooms for trainees, a chapel, 9 rooms, 5 toilets and a reading room.

There are four staff cottages, a farm office cum store, a workshop and carpentry centre, a kitchen and refectory for students, and 15 toilets for the trainees. There is also a piggery and poultry farm, and the sheds for the Dairy herd are nearing completion.

The School: a) Courses: Two types of courses are offered by the Centre. A junior course for non-matriculates and a senior one for matriculates. The junior training course does not guarantee employment to the trainees. They are given the course, however, so that they can return to their villages and apply the new agricultural strategy they have learnt locally to their respective areas.

The matriculates admitted to the senior training course, are in the line of V.L.W.'s. This course is meant to make them Agricultural Advisers in various Extension Centres.

Both the courses are run concurrently for 2 years. Thus the two year period enables the students to go through the whole cycle of agricultural operations twice. The school year starts towards the middle of June and closes by the end of April with a 15 days break during Christmas.

b) Students: At present there are 85 students studying in the school. All of them are Tribal Catholics. Of these 82 are from Chotanagpur, and 3 from other parts of India. The vast majority of students are slightly above the average from the point of view of the economic status of their familes.

c) Fees: The monthly fee for board and lodging are Rs. 28/-. The Chotanagpur Cooperative Credit Society offers stipends of Rs. 33/- per month, towards board and lodging each year. This financial help is strictly confined to bank members. No tuition fee is charged.

d) Subjects: The following subjects are taught to the students:

1. Soil Management
2. Crop Production and Protection
3. Use of Chemical Fertilizers
4. Animal Husbandry
5. Poultry and Bee Keeping
6. Land Survey
7. Agricultural Economics.

e) Staff: Altogether there are 12 salaried members on the staff—six in the teaching and six in the administrative section. In addition to these, there are twenty agricultural workers and 8 industrial workers paid weekly wages. There are 6 priests on the staff—3 non-Indians and 3 Indians—and the balance are lay workers often working on a voluntary basis.

f) Finance: Considerable financial assistance was sanctioned by Misereor towards the building, the dairy, poultry, piggery units and the purchase of agricultural implements. This assistance was made available to the Centre during the period 1961-63.

The specific objective of the Centre is to train young boys in agriculture so that they can return to their villages as local leaders and set about improving the farming and village environment. To this end, the training programmes emphasise practical work, which help the young trainees to acquire both confidence and a certain degree of technical know-how. This particular training programme fills the gap presently existing in the overall programme of agricultural education in the country. So far the agricultural and veterinary colleges run by Government and other agencies have been training officers for development and education work and not for actual farming. The current training of officers does not provide for actual experience in operating farm enterprises. The work of these officers, in the Block centres, is greatly handicapped by the paucity of village leaders trained in agriculture, capable at the same time, of motivating villagers to adopt improved methods in agriculture. The A.T.C. at Namkum supplies such leaders in the hope that they will act as essential links between the agricultural officers trained in the agricultural and veterinary colleges, and the villagers themselves.

Suggestions: This infant Institute, although it has made good progress in the few years it has been in existence, is still beset by many problems — financial, personnel and administrative in nature.

At present, the shortage and inadequacy of the teaching and technical staff is the most serious problem which the Centre has to face. In order to improve the financial position of the Institute, it is desirable that greater efforts be made to run it on more commercial lines. Proper accounting

and auditing could possibly be carried out periodically by the higher authorities and, where possible, economies could and should be effected. The Centre would do well too, to improve the emoluments of both the teaching staff as well as the administrative and farm staffs employed by it and to appoint better trained personnel. For the more technical aspects non-Christian personnel should not be precluded from playing a more active role in the running of this project.

Provision for security in service, and other amenities, would go a long way in attracting a better class of work staff. The dependance of the Centre on foreign personnel for teaching and running the farm and dairy cannot, and should not be prolonged. As far as possible, the appointment of foreign experts should be discouraged, for no other reasons than the fact that these men, though highly trained and qualified in their respective skills are often handicapped by the lack of an ability to communicate in the local language, and are somewhat slow in familiarising themselves with local agricultural conditions. The consequence is that suggestions made by them are frequently considered too sophisticated to be of direct application to local situations. As soon as possible, therefore, the Centre should embark on a programme to train its own indigenous personnel.

Since the field staff of the Extension Department of the Credit Bank are trained at the Centre, it is desirable that these two institutions work in closer coordination with one another. Experience has proved that if well managed, the farm can provide a regular source of income to this undertaking. However, it is not realistic to expect that the farm, even if fully exploited, could support the School.

At present the scholarships provided by the Bank, too, are not sufficient to support the trainees. If the Bank cannot bear the full financial burden of running the School, new means will have to be examined and explored to cover the hostel and training expenses of the students.

B. Agricultural Training School, Khuntitoli

Early stages: The school was started in 1963 by the G.E.L. Church under the technical assistance of a German Agricultural Expert, at Khuntitoli, 90 miles south of Ranchi on the Ranchi-Simdega Road. Originally, it was intended for the training of young local farmers in improved methods of cultivation, in the use of chemicals, and in poultry keeping etc., so that these men could go back to their villages and improve on their own traditional cultivation practices.

In subsequent years, however, the scope and concept of this institution has been considerably broadened. Demonstration farms were started in Ranchi and in Assam to spread the agrarian revolution to these regions. The Khuntitoli Centre has now become a regular agricultural training centre. The Assam Government recognised this institution as far back as 1965,

and successful trainees from this Centre are appointed as Village Level Workers in the Government Blocks in that State.

Present Activities: The School offers a 3 year integrated action-oriented course in agriculture and its allied problems. The first year is devoted to theoretical training, with little practical work in the school garden, and the last two years to intensive field work on the mission owned land.

81 students from Chotanagpur and Assam have already been trained at the Centre. During our enquiry there were 24 trainees: 4 from Assam and 20 from the Chotanagpur division. The selection of students, for the course, is open to all, irrespective of caste and religion.

The Centre works nearly 200 acres of land with pumps fitted with aluminium pipes. A small river running along the side of the area has been dammed, and provides water for irrigation perennially. Two tractors are used for cultivating the land. The school building is on a separate plot, inside the mission compound. It has 4 big rooms for classes, a box room for trainees, and a laboratory. A new building is now nearing completion to house the dormitory and refectory and to replace the inadequate facilities currently available for this purpose.

The staff of the school includes, an agricultural graduate, a German farm specialist, a trained Kamdar and 2 other lecturers, who are also trained farm specialists. All of them have been provided living quarters in the mission compound.

Finances: The expense of the whole institute and the farm is borne by the German Mission. The students stay there for 3 years, free of cost. There are no tuition fees. Besides the initial cost of the institute and the farm, the recurring expenses are also met by the German donor agencies. The produce of the farm is partly sold to finance the Agricultural Supply and Marketing Association (A.S.M.A.) and partly for feeding the trainees.

This training Centre faces two major difficulties: lack of interest among the young men of the region and teaching methods which are not fully adapted to the local conditions of the area.

Agricultural Supply and Marketing Association (ASMA): An extension programme has been recently introduced at Khuntitoli. At first it was started to provide initial capital, fertilizers, seeds etc. to the out-going trainees to enable them to start improved farming on their own fields. It was believed that this would prove an ideal approach to extension work and would have a great impact on the farmers among whom the trainees would live and work and demonstrate the new skills they had acquired.

For the present, the programme is mainly an extension one ...

scheme for the people in general. The farmers of the locality are provided chemical fertilizers, seeds etc., both on cash payment and as short-term loans.

The following amounts of fertilizers and seeds etc. were distributed among the farmers during 1966-67.

		1966-67	1967-68
1.	Chemical fertilizers	30 tons	51 tons
2.	Taichung Native I	3 mds	5 mds.
3.	Maruwa Seed	45 kgs.	17 kgs.
4.	Families benefitted	136	169
5.	Area under improved practices	130 acres	250 acres

A wider area of land could have been brought under improved farming, during the current season, but the demand for fertilizers could not be met. Moreover, at present, fertilizers cannot be stored for long at site, due to the lack of adequate storage facilities. It is hoped that a large godown will be constructed before 1968.

C. St. Augustine's Farm, Manoharpur

A few years ago a small farm was started at Manoharpur, on about 10 acres, most of which was waste land of very poor quality. The farm includes a small dairy herd, a piggery and a poultry unit. The purpose of this agricultural scheme is to utilize all available-land to grow more food, and to provide short training courses to the local farmers, from time to time. The land is used for growing fodder and some green crops, including paddy for improved seed multiplication and vegetables.

The training course lasts from a week to ten days and concentrates chiefly on the growing of vegetables. Small quantities of simple fertilizers like bonemeal, cowdung, and lime are also produced on the farm and sold to the local cultivators. This seems to be effective and popular.

D. Teachers' Training Schools (Basic)

There are 4 Teachers' Training Institutes under Church auspices: Sitagarha (Hazaribagh), Noatoli (Ranchi), Ranchi (S.P.G.), and Deoghar (S.P.). The chief aim of these institutes is to train the students (boys) for teaching jobs. Since these trainees will work in the rural areas of Chotanagpur, they are taught improved agricultural practices and the basic elements of rural extension work, so that on returning to the villages, they are able to instruct and guide the farmers, and thus contribute to the current agricultural revolution taking place all over the country.

There are as many as 4 Teachers' Training Schools for girls under the Church auspices: 2 in Ranchi town (one run by S.P.G. and other by

(Lutherans) one in Deoghar (Lutheran) and one in Lohardaga (Catholic). In these institutes the girls are taught home science, gardening, bee keeping, poultry raising, etc. in addition to their regular courses.

6. Other Agricultural Projects

Apart from the developmental activities such as the ones which have been described in this section of our Chapter, (i.e. intensive agricultural schemes, and agricultural extension services, etc.) the Church in Chotanagpur is also engaged in other projects which complement or supplement the main agricultural development work in the whole region. Grain golas and, of late, "food for work" programmes are two important means through which the Church has met the needs of the farmers and contributed to rural development programmes.

A. Grain Golas

Grain golas are not new in Chotanagpur. They were already functioning in the rural areas even before the Church started them. But due to the lack of cooperation and confidence amongst the people, most of these either became defunct or exist now only in name.

In Chotanagpur, grain golas are of two types: Cooperative and non-cooperative. All the government grain banks are under the category of non-cooperatives. The main difference between the cooperative and the non-cooperative golas is that the farmer has unlimited liability in the cooperative form of golas while this is not the case with the non-conperative type. Besides, in the case of cooperative grain golas, decisions on policy, decisions on the running and on matters connected with subscribed capital are taken by the shareholders themselves.

In almost all the tribal villages of Chotanagpur there were indigenous grain golas, and most of them were run on a cooperative basis. Grain was collected and put under the charge of a single member. During the time of scarcity this grain was lent to the people at a low rate of interest. But most of these golas failed due to one cause or another.

In the current context today, in most villages, these indigenous grain banks are disappearing owing to the fact that there is now enough scope for people to earn their livelihood, during the slack seasons, in non-farming occupations, and crops are, on the whole, better than before. Another reason for the gradual disappearance of grain golas is the lack of cooperation among the villagers, and the nonpayment of loans.

Grain golas solve immediate problems and in general are of a "remedial" nature. It is only natural therefore, that as soon as conditions improve, they gradually disappear. At present more attention is paid, and should be paid, both by government and voluntary agencies, to an all-round in-

crease in agricultural production to wipe out the root causes of grain-shortages.

Church and Grain Golas: When we speak of Church sponsored grain golas we mean those which are located within the parish and which have been initiated and aided by Church organizations. It is often for the sake of safety and convenience that these grain banks are erected in or close to the mission premises. The Chotanagpur Project of the Indian Social Institute surveyed 20 grain golas under Church auspices. Out of these 14 were in Ranchi District, 2 in Palamau, 2 in Hazaribagh and 2 in the Santal Parganas. These grain Banks were all, with the exception of one, of the cooperative type. In 1966, their total working capital was 13,350 maunds of paddy and they served about 8,140 families.

Again of the 20 grain golas surveyed, 5 of them were helped by foreign agencies in the form of cash donations. In the case of 4 cooperative grain golas, cash donations were requested and granted by foreign agencies such as Misereor, Catholic Charities, etc. and with the finance received godowns were erected.

While the working capital was subscribed by the beneficiaries themselves in the form of paddy, in the case of one grain gola, which is of the non-cooperative type, a substantial financial grant was given by the Catholics of Malta. The rest of the grain golas have either no proper storage facilities or have their indigenous godown built by voluntary labour or under "food for work" programmes.

The reasons which motivated the establishment of these grain banks in the region are varied. Briefly, they may be summed up as follows:

a) To advance to the farmers grain, during times of scarcity, and at moderate rates of interest, for seed and also for consumption.
b) To save the poor Tribal farmers from the clutches of money lenders, who charge exorbitant rates of interest, ranging anywhere between 75 to 100%. In many cases the lands of the farmers are taken over by local money lenders on mortgage, because of their inability to repay the loans with interest.
c) To encourage a sense of thrift among the farmers.
d) To help local Churches and schools.
e) To help poor and *deserving* students undertake further studies, etc.

Thus most of the reasons for starting grain golas were to meet emergency or temporary needs. Besides fulfilling their primary objectives briefly summed up above, the grain golas often have aims which are, strictly speaking, of a non-agricultural nature. This is evident from the last two reasons enumerated above. Since it is mostly the poor people who are in need of grain golas, one could perhaps question the advisability of using the grain gola profits to finance or support institutions which, though important, are

not directly connected with food production. Once the root poverty and hunger are wiped out, the importance of grain diminish. With increasing agricultural production the people's grain golas is bound to decline. Therefore, what is more urgent is the establishment of more agricultural extension services, minor schemes, etc. Certainly, these have a deeper and more lasting ef agricultural economy of the whole region.

B. Food for Work

Relief measures do not in themselves provide a permanent s the food problem, but in times of crises and acute shortages, they the only possible remedy. The Catholic Relief Services of the Catholic Welfare Conferences, U.S.A., are the main suppliers medicines and other articles for direct distribution. Catholic India, with its headquarters in New Delhi, and its Diocesan Dir the main coordinating agencies for all Catholic Relief activities. nagpur, as far as the Catholics of the Ranchi Archdiocese are the food distribution programme has been closely coordinated credit and extension activities of the Cooperative Credit Soc Committee for Relief and Gift Supplies of the National Christia of India fulfils for the other Churches a role similar to that of Catholic Charities.

In order to tackle the food problem in a more constructive F.A.O., U.S.A.I.D. and other agencies have suggested that the di of food should be gradually replaced by "food for work" in self-hel

This new programme has been implemented in the Ranchi A on the following principles:

1) Each Bank Circle is entitled to two food for work projects, in a year (wells, tanks, etc.).
2) Beneficiaries should not be discriminated against because or creed etc.
3) The owner of the project should pay the freight charges
4) A Kamdar of the Parish Extension Service should [illegible] project work.

Other norms to be followed in the implementation of the [illegible] also been laid down by the Cooperative Credit Society, [illegible] number of bags of food to be given etc. Some of these [illegible] are not the choice of the Bank but have been [illegible] agencies. Provisions for [illegible] up to Rs. 500/- per project in the case of wells [illegible] project owner is able to get Rs. [illegible] from [illegible] Rs. 250/- may perhaps be [illegible] by the Bank [illegible]

During the [illegible]

programmes has rapidly developed in almost all the parishes. Some have even made concrete proposals and applications to the Cooperative Society. At present there are 454 wells, 293 small tanks, 142 embankments, and about 100 fencing projects in Ranchi Archdiocese covered under this programme.

The Cooperative Society has fixed a target for 15,000 wells, 5,000 percolation and irrigation tanks, and 15,000 fencing projects during the next 7 years under this programme. Again, under these schemes, food distribution has become a powerful agent for agricultural development work, while at the same time instilling in the rural people a desire to work for their own socio-economic betterment.

III SUMMARY, EVALUATION AND CONCLUSIONS

Since the farmer is the central catalyst in the process of agricultural production, the human factor of management will always play a vital role in agriculture and unless sound management principles are employed in farming, as in industrial and other commercial undertakings, the results may always be disappointing no matter what facilities and agricultural materials are offered to the man on the land. The lack of even a basic knowledge of sound management principles leads to the incorrect application of one, or a combination of available resources, with the result that the overall output of an agricultural enterprise is disappointing in relation to the inputs which go into it. Whilst these facts are now more widely recognized by the Church, and excellent work has been done by some parish priests in guiding and helping the farmers in their areas, there is still a need generally, for greater understanding by the Church, of some of the factors and forces which are continually at play in shaping rural and farm decisions.

In helping the farmer in a particular community to decide on how best to utilize the resources at his disposal, Church organizations in the field must take into account social, economic and legal institutions. Some of these may reduce, inhibit or modify production and consumption trends and patterns available to the farmers; others may influence the type of farming he may undertake, or may open up new possibilities to him. There is the greatest need, therefore, for the Church to extend its activity in the agricultural sector to embrace rural sociology, so as to study and fully understand all these considerations, in order that it is better able to guide farmers in using their limited resources in such a way that will bring them, and the community as a whole, the greatest possible rewards.

So long as there is a basic understanding and appreciation of the foregoing, as a foundation from which to start building on, as well as other local problems as they occur in each different region, there are innumerable ways in which the Church can help develop agriculture and rural life in India generally, and in Chotanagpur in particular. These steps could include the formation and support of dependable and efficient cooperatives in local areas, in agricultural, social and general education of farmers and

their families, in the extension of much needed help and medical facilities in the villages, in the expansion of rural credit already provided so admirably by the Chotanagpur Cooperative Credit Society, the actual propagation, multiplication and distribution of improved agricultural seeds, or the distribution of these even by direct procurement from reliable sources, as is currently being done by the separate extension wing of the Cooperative Bank in Ranchi), the widespread dissemination of knowledge regarding correct irrigation and fertilizer practices, and even in the possible breaking of marketing and transport monopolies which exist currently with Mahajans and Baniyas in different, far flung communities.

In many of these fields, the Church has already a record of which it can justifiably be proud. To cite but one instance, the Chotanagpur Cooperative Credit Society has already succeeded to a large extent in liberating the farmers from the clutches of unscrupulous money lenders and in providing them with enough credit for agricultural development. However, the need for greater rural credit [illegible] is obvious from the reasons given for the establishment of the many Church sponsored grain golas. Again, the Church has already made a good beginning with rural extension work and the Cooperative Bank in Ranchi has begun investing some of its profits in direct extension and agricultural development schemes by providing farmers with improved seeds and fertilizers, by providing scholarships for the training of [illegible] extension workers at the Agricultural Training Centre at Namkum, by undertaking the construction of storage godowns at key centres, and by financially assisting some of the more successful agricultural [illegible] schemes in the area. However, in this line more could be done and the Church must attempt, even with its limited resources, to [illegible]. Besides, the impact of the Cooperative Bank, as far as agricultural development goes, is currently felt almost exclusively in the district of Ranchi and it is desirable that this be [illegible] to other areas. Naturally, this is not something which can be accomplished in a short span of time (particularly since the separate extension wing established by the Cooperative Bank is still in its infancy), but there is a need for the Bank to organize its agricultural extension department on more professional and scientific lines.

With the general feeling of suspicion and distrust which many villagers feel towards officialdom and many of the [illegible] programmes [illegible] today, the Church and other voluntary organizations have an unlimited scope available to them in all agricultural and rural fields, so long as they are once able to convince the cultivating class of their genuineness and the honest and sincere desire to better living standards. This is not to say, however, that the Church [illegible] other existing official agencies [illegible] committee [illegible] locally, with tact and [illegible] operation of all official [illegible] obvious necessity, and [illegible]

side, the Church would, at the same time, be safeguarding its own interest so that its motives in helping the illiterate, and poverty-stricken village to better themselves, are never questioned or misunderstood. Indee there is greater need now, than ever before, for agricultural schemes con missioned by Christian Churches, to ensure the closest possible collab ration with Government agencies at the village, block, district and division levels, that there is no possible room for misunderstandings that they a working to compete with official schemes but only to complement them.

It would be a mistake too, if the Church designed and commission schemes which were not directly and realistically related to the immedia "felt-needs" of the cultivators in their area. Nor would it be wise undertake a multipurpose approach to agricultural, rural, social and econ mic problems, unless the equipment, technical knowledge and experienc and adequate finance were already first there. Nothing disillusions a disappoints villagers more than the lack of expert knowledge or the absen of finance for a particular scheme. Again in many instances, demon trations with improved seeds, fertilizers and irrigation are carried out, wi the sincerest of motives, on surplus lands attached to mission compound In some cases, these are studied and observed with apparent interest, but the majority of instances, they fail to have an impact on farmers who fe that similar results could not, and would not, be obtained if identic demonstrations were carried out on their own, poor, eroded, infertile a un-irrigated fields. It is suggested that where possible, therefore, t Church avoids this, except perhaps in cases where demonstrations a carried out on actual cultivators' lands.

There are unfortunate instances too, where schemes commissioned the Church are seldom followed through to a logical conclusion. Th a programme to get a particular farming community to adopt new hybr seed, and improved cultural practices and techniques in the fields, occ sionally peters out after the initial enthusiasm has died down, and the fa mers find that, with increased yields, adequate arrangements have not be made to help them with the efficient and timely marketing of surplus pr duce; or that with seasonal gluts on the market, traders and middlem are not willing to buy their crops unless they are available to them at roc bottom prices. These, and many other similar pitfalls need to be avoid if the Church is to play an effective and permanent role in helping to dev lop agriculture.

The official policy of placing limitations on agricultural holdings h done little to help encourage the Church and progressive farmers, to unde take the formation of efficient mechanized farming units in the countr and although they are more the exception than the rule, restrictions this sort have undoubtedly been responsible for a curtailment in their e pansion and in a growth of their numbers. This is indeed a pity for, tak by and large, many Church related agricultual projects are fairly go ahe in the field, and some parish priests obviously have the education and r sources to organize and lead cultivators in mechanized joint-cooperati

farming ventures. Since the official government policy is clearly in favour of joint cooperative farming unit, the Church should now consider undertaking more ventures of this nature. In this connection, the mechanized cooperative farming experiment begun some years ago in TONGO, Ranchi District, and plans to start a similar cooperative venture in Majhatoli, deserve special mention and merit further consideration.

While Church sponsored agricultural projects should make every attempt to increase the area of land under cropping, the paramount need is really one of improving areas already under cultivation. Erosion and poor soil fertility, as also incorrect crop husbandry and poor techniques of cultivation, are fairly commonly to be seen throughout Chotanagpur and the Santal Parganas, and, despite a growing awareness of a decline in the productive level of the soil, not sufficient efforts are being made to either check or rectify this.

Church related agricultural programmes introduced to improve soil structures with the growth of green manure crops, have, unfortunately, met with very limited success so far, particularly because the seeds of green manure crops have not been made easily available to them, and because the results obtained from this type of manuring are not so immediately apparent or spectacular as those obtained by the application of chemical fertilizers. In parishes where the Church practices agriculture, therefore and in places where agricultural programmes are introduced to improve existing soil structures, it is recommended that farmers be encouraged and persuaded to go in for:

a) fast growing green manure crops which can be planted at the start of the monsoon and which can be used as manures before the transplanting of paddy is undertaken;

b) green manure crops which can be grown along the bunds of paddy fields without affecting the standing crop of rice in the fields;

c) green manure plants which can be grown conveniently on wastelands, and the branches of which may be lopped and applied to the fields during the rainy season;

d) green manure crops which can be sown down in the spring, and which can withstand the summer heat, so that they are ready for ploughing into the soil at the onset of the monsoons.

Contour cultivation and contour bunding, scientific rotation of crops, greater efficiency in the use of fertilizers and irrigation conservation of farmyard manure, strip cropping, prevention of cattle trespass by adequate fencing, and the abundant and cheap supply of pre-tested and improved, high yielding seed varieties, are only a few of the devices which will need to be adopted by the Church to step up and improve agriculture in the different parishes. Far more intensive and detailed instructions too, need

to be imparted to lay parish priests as well as agricultural kamdars working in with them, and it is suggested that, as and when time and resources permit, the new extension wing of the Cooperative Bank in Ranchi prepare and distribute pamphlets and leaflets, in Hindi and other local languages, to help guide them.

Side by side with soil and seed improvement, a more concerted attempt to exploit and develop further minor irrigation schemes is now urgently required in Chotanagpur, particularly since the Banabira and the Majhatoli schemes have already revealed that, with small investments intelligently administered, and with a little technical skill and know-how, programmes of this nature can, and usually do, yield excellent results. Certainly, more schemes of the Banabira and Majhatoli types are necessary in Chotangapur, especially in areas where there are rivers, streams and other perennial sources of water. Naturally, with the many calls made on the Church today and, with its limited resources already divided between so many diverse development works, it would be impractical and foolish to expect the Church to expend heavy amounts in multiple irrigation projects of this nature. Where possible, therefore, irrigation schemes which are drawn up, should attempt to obtain some of the finance required from Government sources such as the Block or the Minor Irrigation Department. This would ensure that these schemes are also undertaken in collaboration with the Government and have the official support necessary to maintain continuity. Other alternative sources of finance, such as those available from Church related agencies such as MISEREOR, CAFOD, etc should also be tapped, where possible, but minor irrigation schemes put for sanction, in these cases, should be properly drawn up and adequately presented. In all cases, care should be taken to ensure that there is somebody capable of making intelligent use of the money obtained, that the person concerned has some basic knowledge and technical skill, and that he is not likely to be moved or transferred until completion of the scheme.

Much greater thought and effort needs also to be devoted by the Church in Chotanagpur, to rearing more productive animals, whether for food or draught purposes, and to developing scientific animal husbandry techniques amongest farmers in the different parishes. In this particular field, a good deal of assistance can be obtained from the various Blocks. India cannot afford to carry the vast population of uneconomic animals it is doing at present, and programmes to improve livestock by better breeding and nutrition, must be undertaken side by side with schemes to increase milk yields from cattle. Such programmes could well be entrusted to the village panchayats in each parish and, under the direction of properly trained kamdars, villagers could be given elementary lessons in feeding their cattle collectively under a rotational grazing arrangement. These programmes would, in turn, usher in greater cooperative effort in the agricultural sector and would even gradually introduce villagers to the benefits obtained from scientific silage. In other parts of India such as Maharashtra and Kerala, very successful cattle breeding and animal husbandry schemes have been tried and worked under Church auspices, and there is no reason to suppose

that these schemes cannot be similarly emulated here.

Pest and weed control measures, plant protection and crop and livestock insurance are some of the other aspects of agricultural development which could possibly be given greater thought and planning than they have hither to received from the Church. Important as these are, however, they will have to wait until available resources permit wider entry into these fields. For the present, the Church can justifiably be proud of its record in providing rural credit, in building proper godowns and warehouses for the storage of fertilizers, seeds, and agricultural produce, and in the distribution of improved seed, fertilizers, pumping sets and improved agricultural implements. However, the Church must avoid growing complacent for, even in these fields much still remains to be done. Moreover, there is still an urgent need to provide farmers with better incentives to increase agricultural productivity from the land. It has correctly been pointed out by the All India Rural Credit Survey Committee, for example, that the weakness of cooperative credit lies in an attempt to combine the very weak in competition with the very strong The problem today, therefore, is not so much the re-organization of rural credit as the creation of new conditions in which it can operate effectively for the benefit of the weaker sections of rural society. Such conditions cannot be created by cooperation within the Church alone, but by cooperation between different christian denominations and in conjunction with the state

Next to the supply of rural credit, cooperative marketing of agricultural produce is the most important aspect of agricultural and rural development, and this task provides both a challenge as well as unlimited scope for expansion, by the Church It also provides the Church with an ideal opportunity to lead and direct thousands of farmers who look up to it for guidance and help in rural areas, and it gives the church a chance to reveal some of its own organizational capacity and to help people help themselves in a tangible manner. To ensure a fairer return to farmers in the different parishes, the Church must, sooner or later, consider steps to encourage the formation of healthy agricultural marketing services and the growth of sound and efficient cooperative marketing societies. This is an immense task, and is not one which can be achieved easily or cheaply, more so in view of the fact that its own past experience of cooperative supply and marketing in the potato growing region of the Dumbarpat area, was not a particularly happy or a rewarding one in the initial years. Nevertheless, the Church has made a promising beginning in this field with the construction of godowns and werehouses in various places, and its activities now could, possibly, be expanded to enlist local panchayats and to infuse in them cooperative marketing principles and collectve bargaining techniques in local and distant markets.

Planned, scientific, cooperative marketing societies are still in their infancy in rural areas. They have suffered heavily, in the past due to dissensions amongest members, and this has-led to disruptive for[illegible] particularly vested interests such as middlemen and other comp[illegible]

exploiting them to their own advantage. The formation and expansion of these societies, and their subsequent success, will therefore depend on whether or not the Church, as organizer and promoter, is able to instill in the farmers a basic understanding of unity and other principles of co-operative effort. Far more than in any other sphere of collectivization, at the parish and village levels, the need to give agricultural marketing cooperatives the highest priority must seem obvious to the Church if it is genuinely concerned with ensuring better economic conditions for the farmers. However, there is need for it to enter this particular field with caution, since these cooperatives will have to be organized on a much sounder footing than others and must be financially strong and viable so that they are able to resist outside influences from various pressure groups. In addition, these cooperatives must have skilled and trained operators who are fully conversant with all the business aspects, and who are able to establish proper and reliable contacts, particularly in distant markets, to supply them regularly with news, cost estimates, forecasts in future trading, and market intelligence.

Nevertheless, in addition to distributing supplies, the separate extension wing of the Cooperative Bank should explore the possibility of transporting agricultural produce from rural to urban centres where prices are more remunerative, or of itself stepping into the breach (when funds permit) as a competitive purchaser. Certainly the Church should give greater thought to pioneering and extending its services to farmers by entering the field of cooperative marketing, and although this will entail a tremendous amount of organization and hard work, it is definitely a field which will bring its own invaluable rewards.

Also, the planning of all agricultural schemes should come from below, and not from Church leaders or people at the top of the administrative ladder. A greater and more conscious effort should be made to involve the local people in the planning stages of all Church related projects in the agricultural sector, and there is urgent need today for an overall improvement in the type and caliber of field staffs engaged by the Christian Church in agriculture. This can , unfortunately, only come about when there is a general improvement in the pay and service conditions of Kamdars and subordinate agricultural and rural staffs employed by the parishes in the different regions, and when agricultural development work is afforded the rightful importance and priority it is due from the Church. Today, the Church could make better use of the Kamdars trained at the Agricultural Training Centre at Namkum for, except in a few cases, these men are often left to manage as best as they can, and fail to receive the guidance and supervision necessary to make them more effective in the field. Nor do these men ever receive any "follow-up" training once they leave their parent institutions and actually start working in rural parishes. It is suggested, therefore, that regular refresher courses be organized and run for them either on a regional basis, or at the training centres themselves.

There are a few other aspects bearing closer examination and requiring

greater consideration, particularly in view of the Churches' growing involvement in the agricultural sphere. The mere fact that the Church in Chotanagpur has actually begun to concern itself directly with agriculture, reveals that a conscious effort is being made by it to move with the times. However, despite the fact that its presence in the agricultural sector is beginning to be felt, as also the fact that its contribution so far has been of no mean order, there is still a great deal more that is likely to be required of the church in the years to come. The importance of preparing itself fully for the enormous tasks which lie ahead, therefore, cannot be minimised.

For one thing, the Church now needs to play a much larger and a more active role, than it currently does, in agricultural education, in improving and widening the scope of the existing services it provides in extension, and in better coordinated planning and follow-up work. In addition to the programme to train and employ kamdars, there is imperative need too, today, to train and educate local village leaders to guide and direct the farm revolution currently taking place all over Chotanagpur, and the Church could shoulder this responsibility, not only as it is presently doing, *but in a much larger measure. For another thing, steps must be taken to* avoid unnecessary duplication and overlapping by bringing about greater collaboration between agricultural operations and projects sponsored by, and within, the same Church, as also between agricultural schemes commissioned by Churches of other Christian denominations. Thus, coordination, or at least closer collaboration could, and should, be possible between the Agricultural Training Centres of Khuntitoli, run by the Lutheran Church, and of Namkum, run by the Catholic Church, and such collaboration should aim at exchanging experiences and developing a common approach to rural problems and extension work.

Again, many of the agricultural projects commissioned by the Church should be need-oriented and should not depend so largely on the personnel available. There are far too many rural schemes afoot today which, though working satisfactorily due to the drive and efficiency of the parish priests concerned, are likely to decline or completely collapse once these men are removed or transferred to other regions. The importance of training the laity to carry on with projects once started, and of entrusting them with the complete running and general administration, so as to ensure continuity and permanence, should never be underestimated or minimised. Very few of the agricultural or socio-economic projects which are started by the Church today, are supported by a structure or a local organization which works independently of the parish or parish priest and, once the originators or the prime movers behind these schemes are transferred, there is a break in the continuity of the project, often resulting in its being shut down. There *is need, therefore, for establishing some of these schemes on a more broad-*based footing, and for making them independent from changes of personnel by Bishops and Religious Superiors.

Where sophisticated techniques of agriculture are followed, it would be wrong to impart training and practical field education of a tertiary kind

to trainees who are unable to adapt such advanced conditions to their own local environments. In such instances, it would be better to pick and choose the very few, who are well qualified, have the natural aptitude, and are considered to have the means, to translate these techniques into reality in their own respective areas. But for the most part, the agricultural eduacation imparted to the majority of these trainees should be kept to something of a basic and elementary kind. The sponsors of the Agricultural Extension Schemes, in the Ranchi Archdiocese, frequently point out that the agricultural advisors and supervisors turned out, for example, from the A.T.C. at Namkum, are immature and insufficiently equipped in the short two-year period during which they cover a wide course. Perhaps, therefore, these men could be given supplementary intensive training, though this need not necessarily be done by prolonging the present two-year course. It could be undertaken through refresher courses given at a later date, either at the A.T.C. itself, or on a regional basis as already suggested before. Certainly, with agriculture now becoming more and more of a technical affair, this is a suggestion which merits consideration.

Since "food for work" schemes commissioned by the Church have apparently received very good response from agricultural communities all over Chotanagpur, the Church would do well to concentrate more on projects of this nature than to attempt ambitious agricultural undertakings which require vast resources and are slow in bringing forth desired results. Thus, minor irrigation works, the construction of roads, tanks, wells, water channels, etc. are all schemes which, together with the formation of service and marketing cooperatives, could mobilize local people and initiate and encourage development work and economic independence on a self-help basis. For, it is time the Church begins to consider working more *with* the people than *for* them.

Again, there is need for Church sponsored agricultural schemes to aim at projects which are of a permanent, and not so much of a remedial nature. Such schemes should have, as their objectives, plans to combat the root causes of ignorance, poverty, and agricultural insufficiency rather than plans to only temporarily raise per capita incomes. Experience has shown that, where the Church has indeed, laid greater stress on long-term projects with permanence in planning, rather than on temporary measures to provide relief to cultivators from season to season, the overall results have been more rewarding and satisfying. Further, schemes which bring direct benefits to the farmers themselves, are more likely to have an impact on them than mere demonstrations and mediocre extension. In this respect, the Majhatoli, Banabira and Rajawal minor irrigation schemes appear to be more worthy of emulation than mere field demonstrations which are currently carried out at a number of rural parishes.

So far as the Church's present entry into the agricultural extension field is concerned, and the work it is so excellently doing in the provision of rural credit through the Chotanagpur Cooperative Credit Society, atten-

tion needs to be focussed on two major problems which are currently experienced by the farmers. The first of these is the problem of transport and the need to gradually build up an additional fleet of trucks etc, as and when finances permit and as and when the separate Extension Department of the Cooperative Bank expands its present activities, to transfer essential supplies and agricultural commodities, quickly and cheaply, to distant parishes and remote areas. This problem is further intensified by the poor quality of roads serving many of these areas. Consequently, the need for gradually building up a larger transport system and for developing roads into the interior, perhaps with "food for work" programmes undertaken in collaboration with the P.W.D., are aspects which deserve attention.

In addition, the Cooperative Bank should seriously study the question of extending the present duration of agricultural loans it provides to the farmers. The existing period of six months may need to be enhanced to 1 year since, to repay these loans, the farmers often have to sell their produce in local markets, immediately after the harvest, when the post-harvest gluts are on, and prices are normally depressed. In this connection, an extension of the repayment period would, perhaps, not only provide the farmer with greater staying power but would help him obtain a fairer return for the labour he has put into his agricultural endeavour. Certainly this is a suggestion which should be more closely studied, particularly its implications as far as the Bank itself is concerned

Yet another aspect of rural development which needs emphasis, from the Church's point of view, is the establishment of small-scale rural type cottage industries to provide farmers in many parishes with alternative employment in the slack time of the year. Thus, agro-industries in the rural sector, such as gur-making from sugarcane, extraction of edible and non-edible oil from oilseeds etc, are all projects which the Church could profitably commission in some of its many parishes. These would provide a little of the much needed finance required for minor agricultural development programmes or for cooperatives working in the area.

Another aspect presently deserving consideration is the need to plan and commission projects in an imaginative manner, in answer to the felt-needs of the people of a particular parish, and not to design them on general stereotyped models already existing in other areas where the Church is active in the agricultural sector. A good example of this is to be seen in the corn-grinding and grain milling unit which has been set up at Mahuadanr (Palamau). Here, is addition to a seed multiplication farm, the sponsors of the project have responded admirably to an urgent need of the people in the area.

If the Church's present programmes in the agricultural sector are to succeed and make the impact expected of them, greater thought will have to be given to the choice of personnel in the fields of extension, marketing, cooperatives, general administration and education. It would be wrong for the Church to think and believe, particularly in the context of the

cialized knowledge and skills needed today with the technological developments currently taking place in Indian agriculture, that parish priests alone, by virtue of their superior education and theological backgrounds, can provide the agricultural leadership required in the rural sector. While there are some priests who have indeed done outstanding work in their own respective areas, there are others who are largely mediocre and who, with only a basic knowledge of agriculture, often regard themselves as experts and commission agricultural projects which are either improperly run or poorly administered. In this respect, the Church should now seriously consider appointing and involving lay people, who are acknowledged experts in these different fields, on remunerative salaries, to help it to plan, execute and handle its different agricultural programmes in a better, well coordinated and more efficient manner. This will not be easy, since there are not too many trained and qualified lay experts available and, where they are, the Church usually does not have the resources to pay such men attractive wages. For the present, therefore, at least to supervise and coordinate the agricultural development and extension work on a regional basis, the Church should restrict itself to the employment of merely one or two lay people who are qualified and willing to undertake this work. In this connection, there are two seperate alternatives open to the Church. The first of these is to run and conduct special courses for priests undertaking agricultural programmes in the different parishes; the second is to form and set up a body of priests and lay experts, at the Archdiocese headquarters, to plan and process future agricultural schemes and to issue directives to parish priests and local leaders on how best to execute them. Premature as this suggestion may be at present, such an Agricultural Development Board could then also formulate and present schemes after proper drafting on the required lines, to interested donor agencies such as MISEREOR, CASA, CAFOD, OXFAM, CARTIAS etc for financial support or assistance, as the case may be, and could carry out periodic evaluation and inspection of the projects sanctioned or commissioned by them. This would ensure better distribution and use of limited resources, greater inter-project collaboration, and well coordinated planning for the future.

TABLE I

	South-West Monsoon (June to Sept.)	North-East Monsoon (Oct to Dec)	Winter Period (Jan-Feb.)	Hot Weather (March-May)	Total
Hazaribagh	1041.7	94 6	52.9	68.9	1258.1
Ranchi	1208 8	116 8	68.1	88.5	1482.2
Palamau	1140.1	84 5	62.8	47.7	1335.1
Singhbhum	1158.8	104 0	54 0	122.8	1439.6
Dhanbad	1073 5	108 2	40 5	88.5	1310.7
Chotanagpur Average	1124.6	101.6	55 6	83.3	1365.1

TABLE II

Name of District	Average Size of Holdings	P C of holdings less than 5 acres.
Hazaribagh	2.5	81.9
Ranchi	6 2	77.4
Palamau	3.1	77.1
Singhbhum	5.0	80.4
Dhanbad	4.2	84.8
	4.2	80.0

TABLE III

Land Use in Chotanagpur and the Santal Parganas District-wise, and in Percentage of the Total area, 1955 and 1964.

Districts	*Hazaribagh*		*Ranchi*		*Palamau*		*Singhbhum*		*Dhanbad*		*Santal Parganas*	
	1955	1964	1955	1964	1955	1964	1955	1964	1955	1964	1955	1964
Forest	43.6	48.1	26.8	25.7	63.5	50.0	51.4	46.8	16.7	15.4	23.4	23.7
Barren	5.0	4.5	5.8	5.3	6.6	3.7	4.4	5.0	4.8	11.2	3.4	4.6
Now put to non-agricultural use	3.8	5.3	4.1	4.7	1.4	3.5	6.4	6.4	11.6	18.2	9.4	7.7
Permanent Pastures	3.0	2.7	.8	.7	.9	.9	.7	1.1	.8	.8	3.8	3.8
Misc. Crops	.9	.7	5.0	.5	.3	.7	.8	.8	.9	.7	.8	.6
Cultivable Waste	5.1	5.6	4.5	0.3	4.8	3.0	6.3	1.8	9.6	4.3	8.2	5.4
Other fallows	7.0	4.7	10.0	10.3	4.2	6.6	5.3	7.7	9.5	7.7	6.2	6.5
Current fallows	8.0	5.6	9.8	8.7	8.8	6.7	6.7	7.0	8.0	10.2	10.2	9.2
Net sown area	19.3	22.8	28.3	38.8	9.6	28.2	18.3	24.5	38.4	31.5	38.0	37.8
Total Cropped Area	24.8	25.2	30.3	39.0	18.6	28.9	25.2	32.1	39.2	33.0	53.7	47.9
Doubled Cropped Area	5.5	2.4	2.0	0.2	9.0	1.6	6.9	7.6	0.8	1.5	15.7	10.1

Source : Annual Seasons and Crops Report
Directorate of Statistics, Bihar
(1955/56–1963/64)

TABLE IV

District	*Per Capita Total Land*	*Per Capita Cultivated Land*
Hazaribagh	1.87	0.39
Ranchi	2.11	0.78
Palamau	2 63	0.66
Singhbhum	1 64	0.41
Dhanbad	0.61	0.22
	1 81	0.55

TABLE V

Area Devoted to the Five Main Crops District-wise and in Percentage of Total Cultivated Area (1955—1965)

	Hazaribagh		*Ranchi*		*Palamau*		*Dhanbad*		*Singhbhum*		*Santal Parganas*	
	1955	1964	1955	1964	1955	1964	1955	1964	1955	1964	1955	1964
Paddy	57.4	58.6	61.6	62.4	26.4	27.9	86.3	78.8	80.9	83.1	71.5	62.8
Wheat	.6	1.1	.2	.3	25	37.0	.2	.2	.1	.1	.4	.7
Ragi	5	5.6	5.6	6.6	1.7	1	.8	2.8	.1	.1	.5	.5
Maize	3.4	9.9	1.2	1.2	11.5	10.3	4.4	6.8	2.2	3.1	7.5	9.8
Dhal	11.2	9.3	12.8	12.6	37.9	28.3	6.3	5.3	8.2	6.3	16	17.5

Source : Annual Seasons and Crops Report
(1955–1964)
Directorate of Statistics, Bihar

TABLE VI

Percentage of Different Seasonal Crops to the Total Area Cultivated by Districts during 1955 to 1964

	Aghani		*Kharif*		*Rabi*	
Districts	1961–62	1963–64	1961–62	1963–64	1961–62	1963–64
Santal Parganas	71.7	72.7	14.1	15 3	14	12.2
Hazaribagh	71.6	67.2	20.6	24.9	7.4	7.5
Ranchi	52.0	59.5	44.0	34 2	4.0	6 2
Palamau	36.2	35.9	31.0	28.5	33.8	35.4
Dhanbad	88.6	84 5	12.9	12 9	2.7	2.0
Singhbhum	82.0	84.4	16.5	11.1	1.3	4.2

Source : Annual Seasons and Crop Reports
(1955–1964)
Government of Bihar

TABLE VII

District-wise Distribution of Major, Medium and Minor Irrigation Schemes (1965–1966)

	Santal Parganas	*Hazari-bagh*	*Ranchi*	*Palamau*	*Dhanbad*	*Singh-bhum*
Minor Schemes	2115	2246	3258	2437	503	1162
Area Covered	29509	35431	44594	43433	5010	28603
Medium Schemes	52	36	49	57	10	25
Area Covered	14516	16760	11478	14169	2314	7626
Major Schemes	24	10	11	21	1	9
Area Covered	51270	28420	69175	82990	11700	61000

Sources :—

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2. Deputy Director of Agriculture, Chotanagpur Range, Ranchi
3. District Agriculture Office, Dumka.

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CHAPTER IV

THE CHURCH AND INDUSTRY

I. INDUSTRIAL CONDITIONS AND TRENDS

1. Industrialization and Mining in Chotanagpur 1940—1965.

Chotanagpur no longer presents the sylvan setting of quiet fields and farms is used to be at one time. Mammoth industrial units sprouting all over the plateau have besieged and challenged the quietness of its villages. Today, this region occupies a significant position in the Indian economy, principally because of its vast mineral resources and its important contribution to the aggregate industrial production of our country. The entire coal production of Bihar comes from Chotanagpur. In addition, out of the 651 other types of mining enterprises (such as iron-ore, chromite, copper and mica) in Bihar, 571 (86.6%) are in this region. It is significant though that while only 28.8% of the industrial units in Bihar are in Chotanagpur, this region claims 62.5% of the States' industrial labour.

Systematic exploitation of resources in Chotanagpur started in 1940, and brought with it, a slow but steady change from an agrarian to an industrial economy. The period under review (1940-1965) has unmistakably set the pattern for the future development of this region, and a study of this development reveals the following trends:—

1. Industries are attracted to such centres where mining is in full operation.

2. Most of the Industries in Chotanagpur are key industries, with potentialities to shape the future industrialization patterns of this region.

It has now become clear that Chotanagpur is likely to shape the industrial destiny of Bihar. But a pace of growth based solely on a deficient infra-structure is bound to be slow. Forces that determined industrialization in the pre-independence era cannot be trusted to produce any monumental results. Further, the inadequacy of investment in the socio-economic overheads which form the infra-structure is very pronounced in this region.

There are six coke oven plants, of which those at Kusunda, Loyabad, Lodna and Bhowara are the most important ones. The main raw material of this industry is coal, which is available in the district, and its main market is Calcutta.

In addition to these, there are different types of small-scale and cottage industries in the district such as tar chemicals, soap, sodium silicate, re-rolling mills, foundry workshops, printing presses, stone crushing, food processing and timber and furniture works.

The incidence of urbanization in Dhanbad district has been remarkable. Dhanbad, Jharia and Sindri have expanded enormously in the last two decades and other townships in the area are also developing fast. The building industry has kept people such as brick-layers, carters, masons and carpenters, engaged in defferent types of works. There are about 20 brick-kilns in the town of Dhanbad; in addition, there are brick-kilns in Jharia, Sindri, and Katras. On a rough estimate more than 1,000 persons are engaged at the brick-kilns at Dhanbad alone.

Wool and cotton weaving are important occupations for the majority of the adivasis. The Tassar Industry is comparatively recent in the district. The Bidi (cheap type of cigarette) industry engages more than 15,000 persons. There are another 200 or 300 men engaged as driers, packers and tobacco cleaners. The bidi industry is, however, fully dependent on the import of raw materials from other districts.

The progress of industrialization in this district can be seen in the light of the annual report of the Chief Inspector of Factories. According to this document, Dhanbad has 606 registered factories employing 25,097 workers. (For details cfr. Appendix I, Table 2). On the whole, the number of registered factories has gone down; from 1044 in 1958 to 606 in 1965. The decline has been very pronounced in the number of oil and rice mills; from 962 in 1958 to 344 in 1965. The Engineering industries, on the other hand show a promising growth. Their number has gone up by 17% with an increase in labour force of 32%. Nearly 25% of the industrial workers of this district are employed by the engineering industries.

Mining : Among all the states in India, Bihar is the largest single producer of coal. Its production represents 51.1% of the total for India. Most of the coal produced in Bihar comes from the Jharia coal fields. It is the richest treasure-house of India's metallurgical coal, and the most developed coal field within the country. There are 377 mining units (320 with power and 57 without power) employing 145,616 men, both direct and contract labour. Besides coal, there are 9 fire clay mines employing 199 workers. (For details cfr. Appendix II, Table 2). Although from 1958 to 1965 the number of coal mines decreased by 58, the employment in coal mines went up by 4.9%

3. *Ranchi : Industries :* Till 1958, Ranchi had never figured as an

industrial city in Chotanagpur. It has been and is still the nerve centre of administration and learning.

With the establishment of the Heavy Engineering Corporation in the public sector, Ranchi has been pushed into the vortex of intense industrial activity. The Heavy Engineering Corporation, with its 3 units, the Heavy Machine Building Plant, the Foundry Forge Plant and the Heavy Machine Tool Plant, is now the biggest engineering complex in India. The Heavy Machine Building Plant has already been commissioned, while the Foundry Forge Plant is nearing completion, and the Heavy Machine Tool Plant is still under construction. The Corporation will provide employment to 19,700 men, both engineers and workers, when completed. It is hoped that by the middle of 1968, all the 3 units will be working to full capacity. With as many as 1,300 machines and 738 machine tools, and over 98 travelling cranes, the H.M.B.P. is designed to turn out equipment and machinery required for a one million tonne steel plant, about every 18 months.

The Sree Ram Ball-Bearing Company and the Usha Martin Black Wire Rope Company, both in the private sector, are medium scale industries located on the outskirts of Ranchi. They provide employment to nearly 900 men.

The High Tension Insulator Factory at Namkum owned by the Bihar Government, produces 2,400 tonnes of high tension insulators per year. It employs 250 men. Operationally, however, this factory has not made good progress, and this fact was revealed in the budget discussion, in the Bihar State Assembly, on 25.7.1967.

M/s Mahalaxmi Fibres, at Ormanjhi, employing 493 men, is a new enterprise in the private sector. Yarn manufacture is the chief work carried out in the factory.

The Indian Aluminium Company at Muri provides employment to 657 workers. This company can boast of sound and well established industrial relations.

The Associated Cement Works at Khalari has an annual capacity of 101,590 tonnes of cement. Of the cement factories in the whole of Bihar, the Khalari Cement Works is the smallest. It has only 640 employees.

It is estimated that there are 5,121 textile and 710 non-textile industrial units which are not registered, providing employment to 9,237 and 790 men respectively.

In 1965 Ranchi had 585 registered factories with a work force of 16,331 men. (For details cfr. Appendix I, Table 3). The new industries registered since 1958 have 49.2% of the industrial labour. The engineering industries have increased by 192.6%, the corresponding increase in the work force is of the order of 211.7%. Although there is a rise in the number

of rice and oil mills of 207%, the labour intake grew only by 127%. Saw mills registered a rapid growth of 254.1% with a labour increase of 288%. The Heavy Engineering Corporation has given added momentum to the already rapid changes taking place in this district since 1958.

Mines : In 1966, there were 28 mines—both coal and non-coal, with 3,152 men in Ranchi district. (For details cfr. Appendix II, Table 3). While the coal mines and their workers increased by 140% and 82.4% respectively, the non-coal mines increased by 128.5% though their workers decreased by 3.2%.

4. *Hazaribagh : Industries :* Industries in the Hazaribagh district are growing in importance, and absorb large numbers of people. The Damodar Valley Corporation, a multipurpose hydel project, has made power available at cheap rates. The Thermal Power Stations at Bokaro, Patratu and Chandrapura add to the power potential in the district. Except for a few repair shops attached to the Thermal Power Stations and Mica and Coal Mines, there are, however, no big engineering works of any major importance in the area.

According to the annual returns of the Inspector of Factories, Hazaribagh, there are 48 mica factories each employing a hundred or more workers. The average intake of labour in the mica factory is said to be between 150 and 170.

The Indian Explosives Ltd., Gomia, manufactures commercial blastings, fuse and detonators. Although this is a private limited company, the Government of India holds 17% of its shares. There are 1807 men employed in the factory.

The National Coal Development corporation Ltd., has its central workshop at Barkakhana. Besides manufacturing spare parts, it repairs heavy earth moving machinery. It has a work force of 940 men.

The Indian Firebricks and Insulation Company and the Assam Silimanite Company are manufacturing refractory bricks, mortars and mixes. They provide employment to 790 men.

The 3 coal washeries at Swang, Kargali and Dugda together have a total capacity of 3.59 million tonnes of clean coal. There are 1368 men working in these washeries.

The seven glass factories in Hazaribagh afford employment to 2097 men. But except for the Indo-Asahi Glass industries, which produces glass sheets, all the others are principally only manufacturing glass wares.

Bokaro Steel Ltd., will be a modern steel plant, with a capacity of 1.5 to 2 million tonnes, with provision for expansion to 4 million tonnes. The

plant is likely to be commissioned in 1970. It will produce flat products with a view to reducing the anticipated shortage in hot and cold rolled steel sheets, strips and galvanised sheets. The plant will obtain its requirements of coal from the Jharia and Bokaro coal fields, iron ore from Kiriburu and Satra, and water for construction from a dam to be built on the Ganga river. Permanent water supply, however, will be from the Tenughat Dam, to be built on the Damodar river. Part of the power requirements are to be met by captive generation though peak demands are to be satisfied by the Chandrapura Thermal Power Station. Work on the site of the steel plant has already commenced.

The steel plant occupies 36,000 acres which will be fully utilized when production reaches rated capacity. About 35,000 people living in 55 villages are affected by the establishment of this plant. Some of these villagers are to be evacuated and rehabilitated elsewhere. A special department Directorate of Project Land and Rehabilitation, has been set-up to tackle this problem. The present arrangement is to select one person from each family to provide him with training in some skilled work, and to absorb him in the plant. Accordingly, 170 people are currently being trained in different grades. There are 2,500 permanent employees now, while nearly 40,000 people are actively engaged in construction work and are employed by contractors. The contract labour is a motley collection of people drawn from all over India. After completion of the first stage, the plant is likely to afford employment to 13,000 men, and after the second stage, to 20,000.

There are also a number of cottage Industries based on materials available from agricultural and forest undertakings, and to a certain extent, on mineral resources; among these are: oil ghanies, rice husking, village pottery, blacksmithy, carpentry, handloom weavings, wood sawing, crude tanning etc. Of these, sawing and oil ghanies have attained the status of small scale industries.

Cotton weaving, of the indigenous type, exists in all parts of the district. The market for this product is generally local, but a small percentage is also sold outside. Cotton-yarn-dyeing is also carried out, by the people, with indigenous vegetable colours which are available plentifully in the district.

Brass and bell-metal work is also carried out throughout the district. The present condition of the workers, however, is far from satisfactory. Their craft also lacks shape, design and finish. New techniques of production and design have yet to be introduced to make their manufacture economical, and to increase the marketability of their goods

One curious feature of Hazaribagh, in respect of cottage industries, is that no particular area is specialized in any of them; they are scattered throughout the region.

According to the annual returns for 1965 of the Chief Inspector of

Factories, Hazaribagh has 576 registered factories with 22,913 workers. (For details cfr. Appendix I, Table 4). The number of mica factories showed a growth of 50.6% though the labour force declined by 3.07%. Mica factories, and the workers employed in them, constitute 40.2% and 51.8% respectively of the total number of factories and workers.

Mining : There are rich mineral deposits in the district. Mica and coal are both to be found in abundance. Mica mining and mica splitting are the most important industries in the region. India is the biggest producer of mica in the world market and 80% of the world requirements are met by this country. Of the total production of mica in India, this district's contribution is over 60%. The mica mined in Hazaribagh is of various colours such as green, white, silver and ruby. The most valuable of these is the ruby coloured one, and the district has a rich deposit of this variety. The marketing of Indian mica however, depends entirely on the demand for it from abroad. Yet another problem of the mica industry is the competition it faces from its various substitutes, the chief amongst these coming from 'samaica', made of scrap mica. The mica advisory committee has, therefore, recommended a ban on the export of waste and scrap mica. Presently, the only solution to steady mica mining seems to be to develop mica consuming industries within India itself. As of date there are 368 mica mines employing 9,785 workers. The Mica mines showed a decline of 18.2% between 1958 and 1965.

Coal mining is another major enterprise of the Hazaribagh district. The important coal fields in the region are Bokaro, Ramgarh, South Karanpura, North Karanpura, Chape, Itkhori and Giridih. There are 81 coal mines with 53,362 workers. Coal mining increased by 47.2% although the labour strength increased by only 21.5%.

Limestone mining is being undertaken in 3 mines employing 261 men. Limestone is required for the iron and steel industry and for the manufacture of glass, chemicals and cement, besides being a major ingredient in the building industry. There are 3 main areas where limestone is found in the disrict Bundu Basaria, Kurkuta-Religara, and Bhurkunda-Kursa.

Thus Hazaribagh has 458 mines, both coal and non-coal, with 63,610 workers.

5. *Santal Parganas : Industries :* Santal Parganas is essentially an agricultural district. It has remained under-developed from the industrial view point, principally because it has failed so far, to attract any major industry either in the public or private sectors. However, the district is dotted with smaller factories engaged in the grinding or milling of wheat and pulses, the extraction of edible oils and the like. Employment in the rice milling industry, besides being seasonal, also fluctuates according to the yields of paddy obtained annually. Presently, the industries engaged in rice-milling and the manufacturing of other edible materials, are facing difficulties owing to severve drought conditions and

resultant crop failures. Naturally, the employment capacity in such industries has also consdiderably dwindled.

One of the oldest industries, in the district, which has now declined is lac. Pakur, which was once the hub of this industry, has lost much of the activities connected with lac. All this happened during the years ending 1958-59. The principal cause appears to have been due to the slump in foreign demand. Unlimited speculation and underquoting of prices resulted in constant fluctuations in prices. The other contributing factors were increasing exports and the keen competition from synthetic resins and siamese seedlac. There is very little internal consumption of lac within India, and this too, has been a major disadvantage facing the industry. Unless a stable internal market is created, the lac industry does not, therefore, face a very bright future Attempts are only now being made by the Lac Research Institute, Ranchi, and other agencies to create a demand for this commodity within the country

There are 41 engineering units employing nearly 1600 men. Most of these are small repair shops connected with motor transport. In comparison with the other districts of Bihar, excluding Darbhanga, Santal Parganas has the highest number of private buses The reason is that Dumka, the district headquarters, is not directly connected by railway. In fact, but for the roadways, many parts of this district would still be fairly inaccessible.

There are a number of bakeries engaging a few persons with small investments. They cater to the local market The average daily production of these units vary from 10 to 14 lbs

The brass and bell-metal industry is carried on by a community known as "Jadupatias". They manufacture ghunghrus (trinklets) and pailas (measuring pots). Small scale units at Deoghar and Sinba have now started manufacturing household brass and bell-metal wares

There is a pharmaceutical company manufacturing indigenous (Ayurvedic) medicines at Jasidih. Besides this, M/s Bihar Pigments and Chemical Works (Pvt.) Ltd., manufatcure zinc-oxide and a few other chemicals.

Bidi making is the largest cottage industry of this district There are nearly 6000 employees engaged in making bidis on a part-time basis. Most of these serve as casual workers. The tempo of this industry, however, is again closely tied to the different agricultural seasons During the peak seasons in agriculture, the industry slows down.

Weaving is an indigenous craft spread throughout the district Coarse cotton, woven in the district, finds only a local market Spinning however, is not as common as weaving, hence yarn is usually imported. The weaver's co-operative society has 19,000 looms and an annual production of about 26,000 yards of cloth. At the moment, the district also shares the glut of an excess produce in handloom cloth with other parts of the country.

Tassar weaving is mainly confined to two villages, Bhagaiya and Savani, in the Godda Subdivision. The fabrics woven include shirtings, coatings, sheets, etc. As no arrangement for finishing exists, however, in the district, the fabrics have to be taken to Bhagalpur, the neighouring district, 80 to 90 miles north of Godda. There is a Tassar Weavers' Cooperative Society with 98 members in Bhagaiya. The production of silk cloth through this society is about 1,000 yards per month.

In 1966, Santal Parganas had 422 registered factories with 3,128 workers against 176 factories with 1,581 men in 1958. The industries increased by 139.7% and its work force by 97% (For details cfr. Appendix I, Table 5).

Mines : The Techno Economic Survey of Bihar, while discussing "New Industrial Opportunities", has observed: "The second largest base is the minerals of Bihar such as......coal,..........quartz, china clay, etc., not all of which have been profitably exploited. Some of the minerals such as.......silica provide the base for an integrated chemical industry"[1]. This observation is particularly applicable and relevant to Santal Parganas, since the district has deposits of coal, quartz, china clay and silica. High grade felspar deposits are extensively found in the Madhupur-Jagdishpur belt, in the Deoghar subdivision. The absence of rail or road communications has, however, prevented the proper exploitation of the abundant mineral wealth which stretches over almost two thirds of the district. Coal, available in the district, is of poor quality, and is used almost exclusively for fuel purposes. The estimated total exposed coal bearing area, of the Rajmahal hills, is about 70 square miles, with an average seam of 5 ft. coal, throughout. The deeper seams have not been worked out so far. In the majority of collieries, surface excavation is still being conducted. The entire production of coal in this district, is at present in the private sector. For want of railway communications, the coal bearing areas of the district are considered unfit for exploitation. There is a long belt of china clay deposit alongside the river Ganga (from Rajmahal to Kanaiyasthan) covering a distance of about 5 to 6 miles. This clay is described as being in no way inferior to German and Japanese Kaolin[2]. There are also deposits of china clay at Khatangi and Karanpura in Dumka Damin. These deposits are far away from the rail heads and the cost of production, therefore, are considered too prohibitive to stand competition.

There are several stone quarries alongside the main line of the Eastern railways. This industry has developed well at Mihijam during the last 10 years. The main reason ascribed to its rapid growth is the presence of railway facilities. The work here is mostly done on a contract basis. Thus employment changes with the change in the volume of contract. About 100,000 tonnes of stones are raised annually from mines and quarries in Santal Parganas, and provide employment to a labour force of about 10,000.

1. The Techno Economy Survey of Bihar; National Council of Applied Economic Research, New Delhi, 1969, P, 108.
2. Brown and Dey, India's Mineral Wealth, p. 21. 22.

There were 85 mines—both coal and non-coal—with a total employment of 8,192 men in 1965 as indicated in the annual report of the Chief Inspector of Mines. The labour force in the coal mines went up by 66.5% though the number of mines decreased by 13%. Stone quarries increased by 26.1% and its labour force by 77%. Altogether there is an increase of 26.8% in the number of mines and 96% in the number of men engaged in mining. (For details cfr. Appendix II, Table 5).

6. *Palamau : Industries :* The physical features of Palamau, the lack of adequate communications, electricity and technical skill, greatly limit the volume and nature of industrialization is this region. Without a good network of communications, only cottage industries can flourish. Even these are hampered, in their growth, by their comparative inaccessibility to markets and by a widely scattered rural population Forest products have given rise to a few typical cottage industries like rope-making cocoon-rearing and a lac industry, thus providing the inhabitatnts with a subsidiary income.

Iron smelting was conducted, on a small scale by the "Aqris". However, since the extraction of iron ore in this crude fashion is no longer economical, the number of iron smelters has gradually decreased.

The Sone-Valley Portland Cement Co. at Japla started production in 1922. The company, which formerly belonged to a British Organization, is now one of the units in the chain of Sahu Jain Enterprises. Owing to the high quality of cement produced and an increasing demand, four more kilns, with its auxiliaries, have been erected and its total production has gone up from 60,000 to 250,000 tonnes of cement per year.

Another medium industry in the district in the Bharat Glass Works employing 1000 men.

Palamau generally lags behind is small scale industries, though the handloom industry appears to be flourishing and meets, to a large extent, local requirements.

The cultivation of lac is widely spread in the district and the lac industry provides subsidiary occupation to the cultivators. The shellac industry is concentated at Baralota, Chainpur, Letehar, Garhwa and Chandwa. Since a large quantity of stick lac is being sent from this district to Calcutta, local manufacturers, with their limited capital, find it difficult to compete with export agents in purchasing raw materials. Hence the factories in Palamau remain partly idle, thus creating unemployment. However, the local factory owners have now moved the Government of Bihar, and the Ministry of Commerce and Industry, to ban the export of stick lac from Bihar or to fix a quota of exports.

There are 25 saw mills employing 258 men in the district. They are located at Daltonganj (3), Chhipadohar (9), Laterhar (5), Cha
Garhwa (1), Rehla (2) and Barwadih (3).

Bidi making is widespread throughout the district. There are 3 registered Bidi factories in Palamau. On an average 50 labourers work daily in these factories. A number of them are in a disorganized form and are still run much as joint family enterprises.

The weaving of cotton and wool provide important occupations to the majority of the adivasis. It is estimated that more than 5,000 looms are at work. The looms are all handlooms with primitive designs; there are very few fly shuttle looms in the district.

The number of registered factories in the district went up from 81 in 1958, to 148 in 1965. The corresponding figures of the workers rose from 2,469 to 3,204. (For details cfr. Appendix I, Table 6). With the exception of the cement industry, there are no other industries which can be classified as medium or large. There is a 15.4% growth in the lac industry with an increase in work force of 25.2%. The few engineering units which exist, are still small workshops employing a minimal number of workers.

Mining : From the report of the Geological Survey of India, it appears that there are deposits of various minerals in Palamau. The important minerals which are available, on a commercial scale, are coal, limestone, fire-clay and laterite. There are also traces of iron-ore, graphite, dolomite, bauxite and lead. So far as the commercial value of these minerals go, it is difficult to say whether large scale industrial development is possible except in the case of coal, limestone and fire-clay. This is principally because no proper investigation has yet been made regarding the possibility of large scale industrial development with these minerals as a base.

Although the total number of mines remained the same–24–the number of workers went up by 3.2% (For details cfr. Appendix II, Table 6). In the coal mines the work force increased by 26.5% . The dolomite mines increased by 155%, but the workers dwindled by 73.1%. The clay-mines went down by 40%, while the labour force increased by 113.4%. The iron ore mines showed a decline by 33.3% and the workers by 64.1%.

The three Five Year Plans have gradually changed the face of Chotanagpur. The phenomenal growth of industry in the steel city of Jamshedpur, the chemical complex of Sindri, the engineering works of Kumardhubi and Ranchi, and the Steel Plant at Bokaro, are industrial endeavours that attract instant notice. The foregoing statistics show that industrialization in Chotanagpur is a continuing phenomenon. This continuous growth is bound to be accelerated in the coming years because of a fast developing infra-structure and the mounting interest of the planners in Bihar's industrial advancement.

Thus in 1965 the position of Chotanagpur vis-a-vis the rest of Bihar in the field of industry is as follows.

Chotanagpur	*No. of Factories*	*No. of Workers*
Singhbhum	680	86,030
Dhanbad	606	25,097
Ranchi	585	16,331
Hazaribagh	576	22,913
Santal Parganas	422	3,128
Palamau	148	3,204
Sub-Total	3,017	156,703
Rest of Bihar	7,451	92,804
Grand Total	10,468	249,507

While Chotanagpur has only 28.8% of the total number of industries in Bihar, the industrial labour in Chotanagpur represents 62 5% of the sum total for the whole state.

The average employment per unit of industry in Chotanagpur is 52, while in the rest of Bihar it is 24. In West Bengal it is 168, in Orissa 91 and the all-India average is 76. This reveals that the industrial pattern of Chotanagpur, in spite of a few large industrial complexes, is still characterised by a vast number of small and often disorganised industries.

In Chotanagpur the district-wise break-up is as follows:

Singhbum	126
Dhanbad	41
Ranchi	29
Hazaribagh	39
Santal Parganas	7
Palamau	21

The development of the ancillary industries holds fresh and extensive opportunities at this moment. At present there are a concentration of ancillary units in Jamshedpur (Singhbhum District) where a vast complex of large industries are located. In this area alone, ancillary industries have been developing over the past decade, and new ones are constantly being born.

The establishment of the Heavy Engineering Corporation at Ranchi heralds a new era for the small scale industries of this district. The requirements of spares, components, semiprocessed parts, hydraulic control gears, electrical switch gears and motor-control gears, sub-assemblies, instruments, hard-wares and tools by the three (Heavy Machine Building Plant, ry forge Plant and the Heavy Machine Tool Plant) should be met

units. A provision has been made for 165 factory units to be set up in the area adjacent to the corporation, acquired by the Government of Bihar. Arrangements for the supply of water, power and other services have also been made. The Heavy Engineering Corporation, in cooperation with the State Government, has also indicated the type of units to be set up in this region.

Technical assistance to the entrepreneurs in the planning of their units, namely, the machinery to be installed, the number and category of personnel to be employed, working capital requirements, etc, is being rendered by the Corporation. The design of the factory buildings for different types of units has also been provided by the design bureau of the Corporation. About 55 entrepreneurs have been granted licences and facilities so far.

According to a survey conducted by the Small Industries Service Instituc, Patna, the Corporation should have not less than 400 to 500 small scale ancillary units by 1985, both in and around Ranchi.

Another area which holds out good promise for the development of small scale industries is the Bokaro Steel Plant in the Hazaribagh district. This Plant will offer opportunities for various types of engineering items required by it, which can well be manufactured and supplied by small scale units in its vicinity. The Government of Bihar proposes to set up ancillary industrial estates for the benefit of such small scale industries, by 1970, in a 400 acre plot already acquired by it.

Apart from Bokaro, the Ramgarh-Patratu area is also developing rapidly. A proposed Alloy Steel Plant is expected to be located near the Patratu Thermal Power Station. In addition to this, the National Coal Development Corporation intends to establish an industrial complex at Ramgarh during the IVth Plan period. It is apparent, therefore, that a wide industrial belt, stretching from Ranchi to Patratu and Bokaro, offers unlimited scope for the development of ancillary industries all along the the area.

New Private ventures in coal mining have come to a halt since the formation of the National Coal Development Corporation—a quasi-government organization. As matters stand, the N.C.D.C. now has complete monopoly over coal mining all over India. Thus any new coal excavation has first to be reported to the N.C.D.C. and the Corporation has the right of precedence over others in operating the mines. Besides, the Central Government is actively engaged currently in amalgamating the small units being operated in the private sector. In Bihar, the coal mines operated by the N.C.D.C. are in the Karanpura area, the Bokaro-Kargali area, and the Giridih area; all in the Hazaribagh district, and in the Jharia area in Dhanbad. The total work force in all their 43 collieries is nearly 63,000

The average employment figure per mine in India is 504 whereas in as folnagpur it is 452. The district-wise break-up of workers per mine is Chota lows :

Dhanbad	392
Ranchi	138
Hazaribagh	658
Santal Parganas	47
Palamau	381

The mining industry has been crying for sometime past now for suitable communications which are, at present, sadly lacking in the colliery areas. Because of this, the coal industry is today facing disquieting situtation. The railways find it difficult to transport coal, especially low-grade coals, to the rural areas where the demand for 'BRK' and '2nd' class coal increases tremendously during the brick-burning season. As 80 to 82% of the coal moves in bulk to different industries, traffic bottlenecks lead to huge stocks of coal remaining piled at the pit heads, upsetting the finances of the collieries, particularly of the smaller ones.

For the past five years, the coal industry in general, and the consumers in particular, have been complaining that the present procedure for determining the grade of coal on an ash and moisture basis is wrong and unscientific. There is now a demand for this system to be replaced by the method based on calorific heat value, which is used in all progressive countries. The lower grade collieries, of the Jharia coalfield would benefit if the calorific value test were introduced, as their coal would then likely to be upgraded.

The production of iron-ore too is currently suffering from inadequate transport facilities and statutory obligations. Singhbhum which contains the largest deposit of iron ore in Chotanagpur, is totally neglected as far as roads and railways are concerned. A road improvement scheme sanctioned at a cost of Rs. 50 lakhs, five years ago, has not been completed as yet. Except for some Rs. 14 lakhs, the money remains unspent so far. The levy of welfare cess at the rate of 25 paise per tonne on all iron-ores, since October 1963, adds to the rising cost of production. The interim wage increase, on the recommendations of the Central Wage Board for the iron ore mining industry, is yet another difficulty currently being faced by this industry.

Of the 841 coal mines operating, all over India in 1965, with a work force of 424,509,493 mines with 202,743 workers are in Chotanagpur. This means 58.6% of the coal mines in India and 47.6% of the workers are in Chotanagpur. The district-wise percentage in relation to all-India is as follows :

	% of mines	*% of workers*
Dhanbad	44.8%	34.4%
Ranchi	1.5%	.3%
Hazaribagh	9.7%	
Santal Parganas	2.3%	

Palamau	.3%	.1%
	58.6	47.6
Rest of Bihar	41.4	52.4
(All India)		
	100.0	100.0

Thus in 1965 the position of Chotanagpur, vis-a-vis the rest of Bihar, in coal and non-coal mines was as follows :

Coal Mines :

Districts	*No. of Mines*	*No. of Workers*
Singhbhum	Nil	Nil
Dhanbad	377	145,616
Ranchi	12	1,669
Hazaribagh	81	53,362
Santal Parganas	20	951
Palamau	3	1,145
Sub Total	493	202,743
Rest of Bihar	348	221,766
(All India)		
Grand Total	841	424,509

Non-Coal Mines :

Singhbhum	83	26,768
Dhanbad	9	199
Ranchi	16	1,483
Hazaribagh	377	10,248
Santal Parganas	65	7,241
Palamau	21	1,473
Sub Total	571	47,412
Rest of Bihar	1,621	185,356
(All India)		
Grand Total	2,192	232,768

2. Estimated Industrial and Mining Expansion in Chotanagpur by 1970-71

Bihar's share of India's mineral production is nearly 40%, which is, in itself, a significant factor. What is even more important is that 95% of the state's mineral production comprising minerals such as iron-ore, bauxite, copper, manganese and coal is being done in Chotanagpur. Therefore,

this region should have built up, by now, a fairly strong foundation in basic metal industries. The development hitherto registered, though significant, is an imbalanced one. To rectify this imbalance, and to strengthen the industrial base in view of the overall industrial development programme, emphasis is now being laid on heavy, basic and intermediate type of goods that can be produced in the region. Some of the important industries of this type are as follows:

1. Pig-iron foundries: As we have stated earlier, the production of pig-iron in Bihar is negligible The establishment of a pig-iron unit is important both from the regional as well as national view points. By 1970-71, between 220,000 and 230,000 tonnes of pig-rion will be required in Bihar. The Central Government have conducted a number of feasibility studies for possible locations, one of which is in the Sindri-Ramgarh area. The result of the study is, however, still awaited.

2. Structural fabrication . Based on the normal relationship between the requirement of finished steel and fabricated structurals, it is estimated that the demand for fabricated structures in Bihar will be of the order of 160,000 tonnes per annum. The total installed and licensed capacities in the State amount to 63,000 tonnes per annum So far, most of the heavy structural fabrication units in India are mainly located in Calcutta and Bombay. Tatanagar presents a suitable site for this unit, as TISCO's programmes include the rolling of heavy structurals.

3. Iron-castings : The requirements of pig-iron for machine building and other industries amount to 67,000 tonnes. This figure can also be taken as the requirements for iron-castings. The requirements of the latter for the establishment of new industries, and the expansion of existing ones, amount from 30,000 to 40,000 tonnes. So by 1970-71, the total requirements of iron-castings will be about 100,000 tonnes. The present sanctioned strength in the state is 70,000 tonnes including the installed capacity of the Heavy Engineering Corporation at Ranchi. Thus, in very broad terms, the production capacity of non-castings in Bihar has to be increased from the present sanctioned capacity of 70,000 tonnes to 100,000 tonnes This means there is need for an increase of about 40% of the existing capacities Since the anticipated demand for non-castings is much greater than presently sanctioned capacities, a new unit to produce 10,000 to 15,000 tonnes of heavy and medium size iron-castings per annum is contemplated. The unit is likely to be located in Ranchi.

4. Ferro-alloys: At present there is no production of ferro-chrome in any form on a regular commercial basis. The country's requirements are met by imports only. Occasionally small quantities of high carbon-ferro-chrome varieties are made by the Mysore Iron and Steel Works. The requirements of ferro-chrome in the country are currently estimated to be about 140,000 tonnes. It is well known that chromite is found in Singhbhum. However, all deposits are of low grade chromite and a not suitable for the manufacture of the low-carbon ferr[illegible]

Nevertheless, high grade deposits of chromite are known to exist in Orissa. With necessary arrangements made to import high grade chromite ore from Orissa, a Ferro-Chrome Plant having a capacity of 15,000 to 20,000 tonnes is likely to be located in Singhbhum by the end of 1970.

5. *Alloy-steel :* M/s Birla Brothers have been issued a letter of intent for an alloy-steel plant in the Patratu area in Hazaribagh district. In addition to this, TISCO have taken out an industrial licence to set up an alloy steel plant with a capacity of 49,000 tonnes per annum. This company is taking necessary steps to set up the requisite unit at Adityapur.

6. *Ball-bearings:* A fairly large unit with an annual capacity of 2.5 million bearings has been set up in Ranchi, but it has not yet reached its full rated capacity for production. In view of the large gap between the estimated national demand in 1970-71 and the sanctioned capacity, the production capacity of the Ranchi unit could be doubled by the end of 1970.

7. *Machine tools :* Except for the programme of the Heavy Engineering Corporation, there is no other unit in Bihar contemplating production of machine tools. The Corporation, when fully developed, will have an annual production of 9,970 tonnes of 278 diverse items of heavy machine tools. The production programme of the Heavy Engineering Corporation will go a long way to meet the demand in the country for the heavier type of machine tools. However, the recent study completed by the National Council of Applied Economic Research on the 'Demand for the Machine Tools' in the IVth Plan indicates that there will still be a substantial shortage in the supply of medium and smaller types to the tune of 24,962 tonnes. In view of this, it is suggested that at least one large unit for machine tools be established in Ranchi in the private sector.

8. *Electric motors :* There is no production of electric motors in Bihar at present. The Bihar State Industrial Finance Corporation was licensed in 1963 to produce 63,000 A.C. industrial motors, from 1 H.P. to 100 H.P., per annum.

Their rated capacity in terms of H.P. may be placed at 0.5 to 0.8 million H.P. per annum. In view of the large gap of 9.57 million H.P. between the estimated national demand by 1970-71 and the presentlys anctioned capacities, it is suggested that the Bihar State Industrial Finance Corporation's unit at Ranchi plan the production of electric motors on a very large scale, at any rate for an annual out-put of 1.5 million H.P.

9. *High temperature carbonization :* Among the increased requirements of hard coke to be met in the IVth Plan are those of the Bokaro Steel Plant, a public sector pig-iron plant at Ramgarh, and the additional requirements of other users like foundries etc. A coke oven with a coal input of 12,000 tonnes per day is being considered in the public sector in the Ramgarh area. The project is also understood to envisage production

of 2050 tonnes of urea fertilizer and 1,300 tonnes of pig-iron per day from the coke-oven gas.

10. Cement : It is calculated that there will be a shortfall of half a million tonnes of cement in the IVth Plan period. A new plant with an annual capacity of 200,000 tonnes is suggested in Hazaribagh or Singhbhum. As we have pointed out before, the Sindri Fertilizer Factory proposes to give up the use of gypsum. Consequently, sludge for cement production will not be available. Therefore, a proposal to shift the Sindri unit to Hazaribagh or Singhbhum, and to utilize the limestone already existing there, needs careful examination. At present almost $\frac{1}{2}$ to $\frac{3}{4}$ of a million tonnes of slag are produced annually at TISCO and more sludge will become available, particularly for cement industries, when the company's capacity is further expanded.

11. Utilization of fly-ash : Fly-ash generated in the thermal stations can also be used in making light weight aggregates for the building industry The following quantities of fly-ash are available in Chotanagpur :

	Tonnes per year
Patratu	1,400,00
Chandrapura	1,500,00
Bokaro	250,00
Bihar coal fields	800,00

With the setting up of a new steel plant at Bokaro, a large new township will also have to be built. Markets for gravel exist in the entire eastern region up to Calcutta. In view of the quantity of fly-ash available and the demand for light weight aggregates for the building industry, plants to make pre-cast building blocks at Bokaro and Chandrapura or Patratu are contemplated.

12. Urea-formaldehyde : A unit to manufacture both urea and formaldehyde with a capacity of 1,000 tonnes per annum bears consideration The location of this integrated unit could be between Rourkela and Dhanbad, so as to utilize all the coal-tar by-products from both places.

13. Industrial gases : At present the total licensed capacities are 2.3 million cft. for Oxygen and 20 million cft. for dissolved acetylene in Bihar. According to the study made by the National Council of Applied Economic Research, the demand, by 1970-71, for these gases will be 466 million cft. of Oxygen and 137 million cft. of dissolved acetylene. Therefore, the production capacity for these gases will have to be greatly enhanced. Apart from expanding existing production facilities, it is also recommended that a fairly large unit with a capacity of 200 million cft. oxygen and 60 million cft. of acetylene be set up in Ranchi.

14. Coal : Coal amounts to 51.4% of the total production in India.

Inadequate rail capacities, introduction of diesel engines on the railways, the greater use of fuel oil in the Western and Southern regions, and the tapering demand from the iron and steel industries, have created the problem of accumulated stocks in the coal industry. However, due to lack of sufficient indigenous oil resources, coupled with scarce foreign exchange, coal is likely to continue to dominate the energy market for quite some time yet.

The target for coal production in the IVth Plan is 125 million tons (41 million coking and 84 million non-coking). The emphasis on non-coking coals is necessary in view of the increasing ash content of the coking grades, the consequent need for washing facilities and, not the least, the necessity for deep mining. This scheme will have an outlay of Rs. 153 crores and is estimated to provide additional employment to 60,000 people.

There are 10 coal washeries in Chotanagpur with a total capacity of 10.87 million tons of clean out-put per year. In addition to these, washeries at Sawang, Ramgarh and Sudamdih are also planned to wash an additional 2.75 million tons of coal per annum.

15. Iron-ore : At present iron-ore found in Chotanagpur is consumed by the iron and steel industries and also exported to other countries. In the IVth Plan period, iron-ore production is expected to increase by 11 million tons a year. This entails a fixed investment of Rs. 32 crores. A pelletisation plant at Kiriburu is also suggested at an investment of Rs. 13 crores.

16. Copper-ore : Copper-ore deposits are now known to be found in Baraganda in Hazaribagh, Hudli Hill and Tendudih in Palamau, and Toolsitan in Santal Parganas. A two-year exploratory programme comprising further drilling, mapping, experimental mining and pilot milling to provide necessary data is under way. The exploratory phase and mine development may involve an outlay of about Rs. 7.5 crores.

17. Mica : In order to step up exports of punched discs, a new plant is likely to be set up in Hazaribagh with a capacity of about 15,000 kgs. a year. With about 20 punching machines and dies obtained on a technical collaboration basis, this factory may require an investment of Rs. 5 to 10 lakhs.

Built-up mica or micanite is already being manufactured at Jhumri-Tilaiya. This unit has a rated capacity of 300 tonnes per year. The factory, is, however, working at a third of its capacity owing to the lack in demand.

In addition to these giant industrial and mining ventures, which will take concrete shape in Chotanagpur by the end of 1971 or early in 1972, we should not lose sight of a wider re ion, the Durgapur-Ranchi-Rourkela development region, which will [illegible] the industrial infra-structure necessary for t[illegible]'s economy [illegible] pected concentration of steel

and heavy engineering complexes, abundant mineral resources a largest power generation units (both thermal and hydro-electric), this stands out prominently as an area demarcated for intensive industrial vity. The full exploitation of the potentialities of Chotanagpur, is to start by 1971 and reach its climax by 1981. The remarkable featur this growth will be the decentralization of industries throughout the reg avoiding concentrations round the large urban centres. Besides the ov lapping of vast industrial complexes like mining, power, steel and hea engineering units, industrialization has, so far, brought about the follo ing socio-economic changes.

i. The latest and most sophisticated technology is being applied to industry in a region with a vast tribal population from which industrial labour has to be marshalled

ii. With the growth of industries, organized labour gradually develops and takes its rightful place in society. More trade union activities will ensue, which are bound to have an impact on social and economic structures and even on political life

iii. The extensive deployment of foreign personnel and know-how in the region.

A speedy development of the Durgapur-Ranchi-Rourkela region will mean a very large increase in employment opportunities, and also an improvement in the health, social and economic, and educational standards of the people in this region

3. The Trade Union Movement in Chotanagpur:

The Trade Union Movement in Chotanagpur began in 1920 in Jamshedpur and Dhanbad. Great men like C.R. Das, C F Andrews, Mahatma Gandhi, Motilal Nehru, Rajendra Prasad and Subhas Chandra Bose took part in building up the trade union movement in these two places.

Jamshedpur : The first organized movement of the workers was started on 24.3.1920 when the steel workers launched a strike to expedite their demands on leave and provident fund. In 1925 Gandhiji visited Jamshedpur and, through his efforts, the constitution of the Labour Association was remodelled. C.F. Andrews became its President. From him, the leaderhip passed on to Subhas Chandra Bose. During that time, however, the abour Association broke-up into rival groups

The Labour movement became more organized when Prof A. Bari and chael John appeared on the scene in 1938. The name of the Labour ociation was changed into the Tata Workers' Union, and the trade n movement began to spread to surrounding areas.

The next landmark in the labour movement in Jamshedpur was the signing of the Tata-Bari agreement after collective bargaining in 1946.

Other trade unions existing in Jamshedpur in the pre-independence days were the Golmuri Tinplate Workers' Union, the Wire Products Labour Union, the Indian Cable Workers' Union, the Tatanagar Foundry Workers' Union, the TELCO Workers' Union and the Maubhandar Mazdur Union.

Dhanbad : Labour in the mining industry was first organized by the late Swami Viswanand in 1929. His work among the miners synchronised with the National Movement led by Gandhiji.

The movement in Dhanbad received a new impetus at the Second Annual Session of the All India Trade Union Congress, held at Jharia in 1921. The Indian Colliery Employees' Association was formed in 1921 and remained a representative of labour in the coal fields till 1928.

The first attempt to organize a general union of all coal workers was the formation of the Chotanagpur Association in 1939. It had a large membership and 3 strikes at Kustore Colliery, involving 6000 workers, were organized by it.

As the Second World War progressed, most of the labour leaders were imprisoned. Consequently, the labour movement came to standstill. Communist elements tried to organize the workers, but failed.

After the war the need for a single, centrally organized labour union for coal miners was felt, and the Koela Mazdoor Panchayat was formed in 1949.

The early leadership of the labour movement was in the hands of public-spirited and humanitarian outsiders. This was principally due to the social backwardness of most industrial labour. These leaders worked closely with the government to alleviate the hardships of the industrial environment. Nationalist sentiment against British rule played a significant part in leading the rising labour discontent. The Indian Trade Union Act, 1926, which removed legal liabilities hampering union activity and permitted outside leadership of registered unions, gave an added impetus to the growth of the labour movement.

However, many factors continued to discourage the development of a strong trade union movement. Neither governmental authority, nor employers, took a very positive attitude of encouragement towards trade unionism. This was due to the nature of labour leadership which was dominated by militant nationalists and communists with radical political and economic objectives. Unfortunately, these leaders were split on a number of ideological issues and carried their rivalries into the labour movement. The economic depression in the thirties was another factor which hampered the growth of unionism.

There were 30 registered unions in Chotanagpur as on 15.7.1947. Their district-wise distribution was as follows:

Singhbhum	14
Dhanbad	11
Ranchi	1
Hazaribagh	3
Santal Parganas	Nil
Palamau	1
Total	30

The figure for the rest of Bihar was 33

After independence, owing to rapid industrial development, the number of registered trade unions substantially increased Thus in 1966, there were 254 registered unions in Chotanagpur, distributed as under :

Singhbhum	56
Dhanbad	91
Ranchi	43
Hazaribagh	31
Santal Parganas	27
Palamau	6
Total	254

Important Unions in Chotanagpur :

Singhbhum : In Singhbhum, of the 56 existing units, 22 are affiliated to the INTUC, 8 to the AITUC and 2 to the UTUC The remaining 24 are independent.

1. Tata Workers' Union : This is the first and the best organized union in Singhbhum. It has been in existence for the last 46 years It claims about 24,000 workers as members out of a total work force of 37,000 Each member pays 1¼ days wage as union subscription annually This union is led by Michael John, M.K. Gosh, V G. Gopal and others All these leaders are drawn from among the workers themselves The office bearers of this union are paid between Rs. 400 and 600 The union is affiliated to the INTUC and its President Mr. Michael John is the State-President of the INTUC. He was also the All-India President of INTUC several times.

2. Jamshedpur Mazdoor Union . This union was organized in 1953 with a membership of 3,000 workers. In 4 years time its membership rose to 28,000. In 1958, the union staged a strike in TISCO led by Kedar Das and Ali Amazad with the support of S A. Dange, then President of the

AITUC. The strike was a total failure. The outcome of the strike was 'the Jamshedpur conspiracy case' filed against the union. As a result of the strike, 700 workers lost their jobs, a few lost their lives and the union had to spend over Rs. 2 lakhs to defend the case. Now the union is almost inactive. It is affiliated to the AITUC and claims a membership of 16,000 workers, spread through 10 different industries.

3. Tin Plate Workers' Union : This union was started in 1929 by Michael John who was a worker in this company. It has a membership of 3,000 out of 5,000 workers. Being the only union in the company it has all the advantages of negotiating with the management on all labour matters. Michael John has been its President from its very inception. This union is affiliated to the INTUC.

4. TELCO Workers' Union : This Union was started in 1949 by the Communists, when the Bengal-Nagpur Railway Company was taken over by the Tatas. In 1947 this union was captured by Michael John and his associates, but it remained inactive till 1952. It claims, at present, a membership of 5,400. Although the union is affiliated to the INTUC, there are 3 rival groups, each claiming superiority over the others.

The 56 unions are occupationally distributed as follows :

Mines	13
Factories	30
Electricity, Gas and Water	3
Commerce	4
Transport & Communications	6
Total	56

Dhanbad : There are 91 unions in this district. Their affiliations are as under :

INTUC	25
AITUC	7
HMS	5
UTUC	5
Independents	49
Total	91

1. The Colliery Mazdoor Sangh : This union was started by the late Prof. Bari. Its early growth was rather slow. In 1950, it had a membership of 20,000 but as of date the total membership is 71,675. It controls the work force of more than 100 collieries out of the 377 collieries in the

that a virtual battle is being fought between rival groups. At present there are 9 trade unions active in the H.E.C. They are :

i. Hatia Project Workers' Union affiliated to IFITU
ii. Hatia Project Workers' Union affiliated to INTUC
iii. Hatia Project Workers' Union affiliated to INTUC
iv. Hatia Project Workers' Union affiliated to INTUC
v. H.E.C. Employees' Union—Independent
vi. H.E.C. Employees' Union—Independent
vii. H.E.C. Mazdoor Union affiliated to UTUC
viii. Hatia Mazdoor Union affiliated to AITUC
ix. Bharatiya Mazdoor Sangh Organized by the Jan Sangh.

2. *The Muri Aluminium Factory Workers' Union :* This union deserves special mention. Owing to the enlightened policy of the management and of responsible leadership of the union, a collective agreement was signed in August 1967. The union has, at present as its President, an advocate from Ranchi.

3. *The National Coal Organization Employees' Association :* This is an independent union of the employees of the National Coal Development Corporation, with a membership of 16,800. Its membership is drawn from all the collieries of the Corporation. Hence this union cannot be considered as functioning in Ranchi district alone. It has earned a reputation for being able to unite the workers and to fight independently for their rights.

The 43 unions existing in Ranchi are active in the following fields :

Mines	4
Factories	28
Electricity, Gas and Water	2
Commerce	5
Transport & Communications	4
Total	43

Hazaribagh : There are 31 unions in Hazaribagh with the following affiliations :

INTUC	7
AITUC	2
HMS	3
Independent	19
Total	31

1. The Coal Workers' Union : This is the oldest union in the district, registered in 1939 as an AITUC unit. It covers the 20 coal fields in Hazaribagh. From 1946 onwards, new unions were started resulting in a a loss of membership for the old union. This union has at present 17,063 members.

2. The Mica Labour Union : It was started in 1940 in Jhumri Tilaiya, and was the only union for the Mica workers till 1954. In 1947, it had a membership of 20,140. With new unions functioning in every mica mine, the Mica Labour Union has lost much of its membership. At present, this union has only 1,200 workers as its members.

Other important unions in the district are :

1. The Indian Explosives Workers' Union, Gomia.
2. The Bokaro Steel Workers' Union, Bokaro.
3. The Patratu Thermal Station Workers' Union, Patratu.
4. The Coal Washeries Workers' Union, Dugda.
5. The Ramgarh Cantonment Board Workers' Union, Ramgarh.

The occupational distribution of the 31 unions of Hazaribagh are as follows :

Mines	12
Factories	14
Commerce	3
Transport	2
Total	31

Santal Parganas : There are 27 unions in the district, 8 affiliated to INTUC, 2 to AITUC, 3 to HMS and 14 independents Of the 27 unions, 9 are for mines, 10 for factories, 4 for commerce and 4 for transport

Palamau : Of the 6 unions, one is affiliated to INTUC and 5 are independent. The oldest union in the district is the Japca Labour Union organised by the INTUC in 1948. It still remains the only union of the cement workers with a membership of 1,200. There are 2 unions for mine and 4 for factory workers in the district.

In the following section we propose to indicate the quantitative aspects of the trade union movement in Chotanagpur The total trade unions submitting returns for the year 1965-66 is 218,177 Industry-wise the breakdown is as follows:

Mining	100,287
Manufacturing	103,142
Electricity, Gas and Water	3,574

Commerce	9,043
Transport and communication	2,131
Total	218,177

The qualitative importance of the trade union movement in this region may be summarised as follows :

1. Organized industrial labour occupies some of the key sectors of the economy. Despite the over-all numerical weakness of trade unionism, Chotanagpur labour has shown fairly effective powers of combination in certain strategic sectors such as engineering, steel and mines.

2. In Chotanagpur, industrial labour represents an 'elite' group in the population. For instance, the average annual per capita income of workers drawing less than Rs. 200 per month was Rs. 1,538 while in Bihar it was only Rs. 1,448 and in India Rs. 1,490. The mine workers too have slightly better wages than their counterparts elsewhere in India. While in Chotanagpur a miner (loader and miner together) earns an average of Rs. 1,573 a year, the all-India average is Rs. 1,549.60.

3. Most of the industrial labour is concentrated in certain key centres like Jamshedpur, Dhanbad, Ranchi and Bokaro which are of national importance. This concentration renders industrial labour, one of the few, concrete identifiable forces rising as a visible entity above the amorphous mass in the rest of Chotanagpur.

4. The climate of industrial relations has an important bearing on economic development. It has a direct relevance not only to the present performance of industry but also in affecting domestic and foreign, especially private, investment in the industrial sector.

Trade Union Membership, Structure and Activities : There has a substantial increase in the number of workers unionized. From 1947 to 1965, union membership increased from 32,500 for 30 unions, submitting returns as required by law, to 218, 177 for 254 unions.

One fact emerges from these figures. Total union membership is divided into 254 individual unions, which are fairly small, with an average membership of 859. The tendency has been for the average size of unions to decline. The decline is most noticeable between 1947 and 1965 : from 1083 which was the average for 1947 to 859 for the year under review.

When the frequency of the distribution of registered unions, according to size, is observed, the smallness of the individual unit becomes even more apparent: 48.1% of the unions are in the group with an average membership of 1 to 300. They account, however, for only 14.3% of the total membership. The number of unions in the 301 900 group constitute 24.3% of the total and represents 36% of the total membership. Unions of above

900 members constitute only 27.6% of the total, but represent as much as 49.7% of the total membership of all reporting trade unions.

Structure of Individual Unions : The law governing the organization of a trade union is set out in the Indian Trade Union Act of 1926. Many Unions are organized on a plant basis. There has not developed, in Chotanagpur, anything like a tradition of craft unionism. This may chiefly be attributed to 3 factors :

1. The Chotanagpur labour force is characterised by the relative absence of skills. Migration into industry has not been by skilled craftsmen as much as unskilled workmen coming from rural areas.

2. Governmental determinations of labour policy and issues are along industrial rather than occupational lines.

3. The alieness of outside leadership, particularly along caste lines, which divides the industrial work force.

There are, however, various strands of occupational unionism in this region: the unions of rickshaw drivers, taxi drivers, journalists, teachers, scavangers, etc. These are mostly in the single occupational industries.

Industrial unionism also includes non-industrial employees, as for instance, the clerical staff. In many cases these unions are 'composite' and include both, the supervisory staffs and the skilled and unskilled workers.

Finances : The average yearly income per union is Rs. 2,150 and the average expenditure Rs. 1,968.60. Assuming that all the income of trade unions comes from subscriptions, the share of the average member is approximately Rs. 2.50 in the case of the average union. The average expenditure per member is about Rs. 2.31 per year, and the closing balance stands at 19 paise per member. The all-India averages are 3.10, 2 75 and .35 respectively.

Most of the trade unions are not on a self-supporting basis, and represent only a narrow range of trade union activity. Except in a few cases, their finances are totally inadequate and there are not enough funds available for the maintenance of even one whole-time officer, leave alone costs to cover minimum office expenses. Thus expenditure on providing benefits for members is insignificant as is apparent from the following figures for 1965-1966 : 7 unions out of the 254, spent 2.1% of their income on 'compensation, to members for loss arising out of trade disputes, 2.6% on 'sickness benefits', and 7.1% on 'educational, social and other benefits'. The remaining unions spent, for the same purposes, 1.3%, 1.5% and 2.2% of their incomes respectively.

The slender financial revenues are supplemented, in the case of severa

unions, by collections of windfall money on special occasions when workers seem most willing to pay. Special levies are made to represent and publicize grievances about which the workers are themselves greatly agitated.

An even more important source of finance for the unions is the special collection made immediately after the lump-sum payment of the annual bonus. Thus, one trade union leader reported that, after a successful 'bonus' case, he could get an average 'bonus' donation as high as one rupee per member (the yearly subscription in this case was the same amount). In many cases individual contributions would run above Rs. 5/- per worker.

Facilities for the collection of subscriptions are also poor. There are no 'check-off' provisions in this area, as for that matter in the whole of India, and even where labour-management relations are healthy enough to permit such a system, the Payment of Wages Act, 1936, which forbids such reductions by the employer, stands in the way. Union leaders also do not react to the check-off system with any degree of enthusiasm. This is due to the feeling that it might cast aspersions on the nature of the unions' relationship with the employer, and lead to undesirable consequences in the overall context of rival unionism. In 8 cases employers co-operated by allowing union leaders to collect their subscriptions next to the pay counter. There have been charges of pilferage and even use of physical force when collections were attempted in crowded slum areas in Dhanbad.

We should like to draw attention, at this stage of our report, on the content of trade union memberships. The Indian Trade Union Act, 1926, mentions merely the minimum membership required for registration, but is conspicuously silent on the criteria required to determine what constitutes membership. No mention is made of the minimum subscriptions to be collected, nor is there any statement as to when membership ceases. Therefore, government estimates of trade union membership are dependent actually on the returns made by individual unions. In reality, the situation is far from satisfactory. Many unions do not collect monthly subscriptions. These are collected quarterly or annually, and unions are not very strict in enforcing the requirement that membership dues be paid regularly. In 54% of the unions in Chotanagpur, it has been found that a member may be kept on the rolls, even though he has ceased paying subscriptions for over a year and a half.

Activities : The narrow range of union activities appears striking in the context of the nature of the work force the union serves: In Chotanagpur 85% of the work force in the coal mines and 79% of the industrial labour are illiterate. This labour class is characterised by low standards of living and a poor awareness of existing legislation. Hence the unions have not merely to fight for major legislative improvements and bargaining gains, but also to ensure that significant improvements are achieved in areas in which the labour class is the weakest. Only a few unions have made any progress in this direction. Important services to members, such as the securing of benefits due under the Workmen's Compensation Act, are neg-

. The percentage of such cases neglected in each district is as follows:

Singhbhum	23%
Dhanbad	68%
Ranchi	53%
Hazaribagh	61%
Santal Parganas	72%
Palamau	59%

or are there well developed channels of communications between leaders and members of the rank and file. Only 12% of the unions otanagpur could point to a union jounral which was published in the language (Hindi or Urdu) and appeared with any regularity. The channels of communications are through the issue of hand-bills and rs, periodic contacts 'on the spot' or public or mass meetings. The al meetings are devoted to a number of speeches, followed by elections e union executive arranged on the basis of open nomination and show nds. There may be a statement of union accounts and activities, ved by a lengthy discussion on what is to be accomplished in the next Controversies regarding elections are usually avoided by prior gements, and it is only on rare occasions when a worker is likely to p and speak openly at such meetings.

e rigours of the compulsory adjudication system are also resposni- or lack of trade union activities. One leader pointed out that he over 78% of his time on industrial court work. Another comment- at his trade union had now become a lawyer's office.

recise information is lacking and a comprehensive evaluation of the cter and outlook of the Chotanagpur worker is yet to be made Most vers, however, both from the ranks of the management and organized r, agree that the average worker has only a partial commitment to in industry, and still retains the association and values of a larger ian society. There is also general agreement that the absence of trade consciousness, on the part of the workers, is one of the major stum- blocks in the development of a strong trade union movement. The ent tendency on the part of the workers to regard trade unions not eir own organization, but as an external instrument which may be discarded, once it does not serve its purpose, is the general result lack of trade union consciousness. One responsible leader pointed hat the workers view the union leaders as "commission agents" who d be paid only when tangible and immediate results are produced. basic explanation for such an attitude can only be found in the ers' illiteracy and in their low social backgrounds.

utside leadership : It is true that 90% of the unions in Chotanagpur been formed and remain active mostly due to the initiative and enter- of outside leaders. Many of them are associated wi th e , in varying capacities such as General Secretary, S

Treasurer and so on. One union leader of considerable standing, in Jamshedpur, remarked that he is the President of more than a 100 different unions, while another in Dhanbad stated that he is the President of 30 separate unions. Yet another leader is General Secretary of separate unions in each of the following establishments: a brick and tile factory, an engineering factory and a coal mine. He is also a General Secretary to four other unions in the neighbouring state.

Many of these outsiders are politically motivated and divided along the lines of the four principal labour federation: INTUC, HMS, AITUC and UTUC. This results in certain weaknesses which hamper the growth of genuine trade unionism. On the other hand, outside leaders perform important and essential services by providing the necessary cohesion for the movement, and by acting as a safe outlet for workers' protests and grievances.

It is still premature to deprive trade unions in Chotanagpur of the benefits of outside leadership. Certainly the local people themselves do not yet seem to be able and willing to take on this important task. Nor is it wise for the employer to categorically refuse to deal with outside leaders, since in many cases they do have a following and wield real influence.

The only way open at present to keep outsiders away from the trade union movement is to train the rank and file members. Such a training programme is long overdue, although some attempts have been made with such programmes, both in Jamshedpur and Ranchi. However, it will take time to develop local leadership and in the meanwhile, trade unions in this area must remain in the hands of outsiders. Today, the labour question is also a political question and vice versa. In spite of the fierce competition in the overall political field, and the dependence of outsiders on political alliances along party lines, the substantial gain the trade unions have achieved is of real significance.

According to their affiliation, the position of the unions in Chotanagpur is as follows :

INTUC	72
AITUC	17
HMS	8
UTUC	7
Independents	150
Total	254

The following rate of growth between 1962 and 1966 is observed :

	1962	*1966*	*Rate of growth*
INTUC	56	72	28.7%

AITUC	16	17	6.2
HMS	8	8	Nil
UTUC	5	7	40%

Regarding membership, the changes observed are :

	1962	*1966*	*Rate of g*
INTUC	66,422	89,876	35.2
AITUC	12,312	16,107	30 8
HMS	2,611	3,080	19.3
UTUC	2,738	3,321	21.3

INTUC, with a 28.7% growth in the number of unions, received c
35.2% increase in membership, whereas AITUC, with a 6 2% increa
unions, achieved a 30.8% growth in membership. HMS unions rem
the same in number, yet showed an increase of 19.3% in membership. U
with a 40% growth in unions had only a 21 3% increase in membershi

In Chotanagpur, there is currently intense trade union activity· 5
of this is attributable to INTUC, 42.5% to AITUC, 27 6% to HMS
17% to UTUC, units in Bihar which are active in this region.

The more industrialized districts in Chotanagpur are Singhb
Dhanbad, Ranchi and Hazaribagh. Ranchi has the highest numb
trade unions in proportion to the number of workers It has
workers engaged in mining and manufacturing and a total of 43 u
Therefore, for every 443 workers, there is, in Ranchi, a union. In S
bhum the proportion is one for every 2,014, in Dhanbad one for every
and in Hazaribagh one for every 2,791. The surprisingly large num
trade unions in Ranchi is largely due to a multiplicity of unions in or
the same plant.

Chotanagpur has a total work force of 406,858 (156,703 in fac
202,743 in coal mines and 47,412 in non-coal mines) Of this 2
(53.6%) workers are members of one trade union or another while 1
(46.4%) are ununionized. The position seems better in the rest of
Of a total of 112,290 workers, 105,714 (94%) are covered by trade u

The growth of independent trade unions is an interesting trend
labour movement of this region. In Bihar, from 1962 to 1966, th
creased by 7.6% (from 396 to 426); in Chotanagpur by 15.4%, (fro
to 150).

The trade union movement in Chotanagpur has not yet spread to th
organized' sector namely to agricultural labour, labour in small and
establishments like saw mills, printing presses, wood work, etc.
union activity is still concentrated only in the basic industries: iro
steel, mining, engineering, etc, where labour and capital are both
sively deployed.

4. Management and Labour Education Programme in Chotanagpur:

The prospect of a tremendous industrial advance with its promise of increased employment opportunities places upon management and labour responsibilities hither to unknown to either. For a better appreciation of their functions, both management and labour need an elaborate and exhaustive system of education. This education has to be directed to produce better equipped and efficient managers on the one hand and, on the other, a well-informed and disciplined worker open to reason under crises.

Management education : Tata Steel of Jamshedpur were among the very first few organizations in India to adopt training as an inherent company philosophy. A carefully planned technical training programme was evolved and fruitfully executed as far back as 1921. In that year, a technical training was established to educate and equip young men for positions of responsibility in the plant. It expanded considerably in the intervening years. The original emphasis was naturally on technology of production and maintenance. Conditions, however, changed in the 1940's. With the increasing acceptance of the trade unions' role, satisfactory labour management relations became vital for efficient operations. The company had to face a series of problems on the shop floor which were the direct result of this phenomenon. After a good deal of deliberations and consultation, the company set up, in 1953, a Staff Training Institute. This institution was made responsible for the company's supervisory training. It was decided to share information with the supervisors, exchange with them views on policies and practices and associate them more closely with company's management. A 'company information course' was, therefore, started in November 1953, as a prelude to the introduction of different training programmes for effective supervision and management. All persons, holding the designation of assistant foremen and above, were considered as part of management. The company information course which was a grand success was followed by other courses, particularly "training within industry" (TWI) programmes. During the last 14 years many other valuable experiments have also been conducted at the company's staff training institute. In fact, many need-oriented courses have been specially developed and commissioned. Thus, thousands of trainees have undergone a variety of courses which vary in their content, their manner and presentation, and various batches of trainees have been chosen to participate in these courses, according to their designations, their nature of work and responsibilities.

Management education, as a regular programme exclusively addressed to the executives within the company, was launched in February 1965 with the creation of a specialized agency for management planning and development. This department combined the work of the Management Research Unit and of the Staff Training Institute.

The executive group seperately identified for the purpose of management education were a set of officers holding the position of assistant de-

partmental heads and above. According to this classification, there were 312 executives in the company on September 1, 1966. Besides these, specially designed courses such as short programmes on preventive maintenance and problem solving are also developed at the Staff Training Institute to meet specific requirements of the company. Recognizing the peculiar need for executive training, the company educates its executives through different residential programmes conducted outside Jamshedpur by specialist agencies. In this connection, the 8-day Management Development Course at Hindustan Steel's Management Institute at Ranchi deserves special mention.

Other industrial organizations are also showing an increased awareness to management education. The Tin Plate Company, the Indian Tube Company, Indian Oxygen and Tata Robuis-Frazer nominate at present executives and supervisors to the courses conducted at TISCO's Staff Training Institute Eventually these firms will have their own programmes.

The Tata Engineering and Locomotive Company introduced its own "training within industry" (TWI) programme in 1960. Supervisory courses are held in its Auto Division. TELCO's executives and supervisors regularly attend TISCO's Staff Training Institute Courses, and TELCO has plans for emulating TISCO in the coming years

Hindustan Steel's famous management institute, and the elaborate management education progamme at the Heavy Engineering Corporation at Ranchi, are obvious pointers to the future of management training

The National Productivity Council through its regional bodies conducts ad hoc courses on a variety of subjects. The staff of this organization go from place to place and plant to plant to give specific training in specialized areas of management studies. The regional bodies of the Council at Ranchi and Jamshedpur are very active. On an average, 2 to 3 courses of one to two weeks duration are conducted every year

Labour education : It is now universally accepted that worker's education is a part of the wider field of adult education. As things stand today, however, a considerable period must needs elapse before the normal processes of general adult education can seep into the working classes. Over and above the general education which the ordinary worker needs, therefore, it is necessary also to impart some form of labour education emphasising trade union methods and philosophy. At present, the Government of India's Workers' Education Scheme which covers a fairly wide and comprehensive range of subject matter is being extended to as many industrial workers as possible, both literate and illiterate, irrespective of union membership

The first stage in its execution is the training of an adequate number of organizers for field work known as 'education officers'. These officers,

employed under the Central Board for Workers' Education, are attached to various centres. They are entrusted with the assignment of training a batch of 25 selected workers in whole-time training courses of 3 months duration. The workers, once they have completed the three month course, become 'worker teachers' themselves. The training thus afforded is a continous process, each centre turning out 75 to 100 trained worker teachers in a year. Subsequently, the worker-teachers go back to their own factories or to other places of employment, and conduct their individual education programmes for the rank and file. These classes are usually organized outside working hours. Generally employers provide accommodation and other facilities for these 'unit level classes'. The worker-teacher receceives from the Central Board a monthly allowances in remuneration.

Worker-teachers are guided by Education Officers and the Regional Directors. Thus the scheme relies on the multiplier-effect.

The first regional centre in Chotanagpur was established in Dhanbad on May 1, 1959. A second centre was started in Jamshedpur on November 15, 1962. The importance of these two industrial areas obviously influenced the choice of location. The increasing tempo of activity suggested the opening of a sub-regional centre under each regional centre. Thus the Dhanbad centre began a sub-centre in Dalmianagar on November 28, 1963. A further sub-centre at Ranchi under the Jamshedpur centre started functioning from August 20, 1964.

The Dhanbad centre, which had an earlier start, has developed deep roots in the area. During the last 8 years it has worked systematically, spreading unit level classess and retaining them. Unit level classess face the danger of gradually being suspended and sometimes being stopped. In the difficult task of keeping these classes alive, Dhanbad has scored over Jamshedpur. The following table amply bears out this statement.

Unit level classes as on 31.7.67	*Centre*	
	Dhanbad	*Jamshedpur*
In existence by June 30, 1967	128	121
In suspension	8	71
In session	118	49
Session completed	68	53
Workers Trained	1900	1325
Under training	2916	1470

The regional centre at Jamshedpur has been able to enlist the cooperation of local industry: TISCO, TELCO, the Tin Plate Company, Tata Robuis-Frazer, the Indian Hume Pipe Company, the Indian Cable Company, Indian Oxygen and other Small-scale industries in and around Jamshedpur. In addition, the Life Insurance Corporation, the State Bank of India and the Railways send also their employees to the programme.

The following table shows the programme of workers educatio Jamshedpur as on August 31, 1967:

	Trained	*Under Tr*
Number of Worker-teachers	360	35
Number of workers covered	9471	1520

There are 51 unit-level classes distributed all over the city Ma ment, as also the accredited unions in the steel city, have spontane responded to the Government's call for labour education

The sub-regional centres in Dalmianagar and Ranchi did not much difficulty in spreading the scheme, mainly because with the gr industrial population, trade unions and management alike, looked it as a useful activity. To date, the following achievements have made by the Ranchi sub-regional centre.

Worker Teachers trained	21
Workers trained at unitlevel classes	200
Workers undergoing unit-level classes	275

An aspect of labour education at the centres that merits attentic the system of short-term training programmes with limited and clea objectives. These programmes cater to special groups with the a trade unions and educational institutions. The trainee is instructe trade union consciousness, the purpose, function and administratic trade unions and union-management relations. The short-term co are now conducted only in Dhanbad and Jamshedpur

Notwithstanding this, the workers' education scheme has its inh weakness, namely, its attempt to reach out to all industrial workers theory this sounds impressive. But its relentless quest for quanti development and its excessive preoccupation with numbers has dilut efficacy. The scheme does not equip the worker with the kind and qu of training and education required. The trade unions of today re the highest qualities of leadership and an intelligent appreciation of hu nature and its social institutions. The government scheme, while rally serving a useful puroose ingnores the peculiar needs of particul dustries and of trade union workers connected with them Gen speaking, trade union workers must have a thorough knowledge o complex and technical tools of collective bargaining, of participatic joint committees and democratic management in their unions. This in the workers' education has yet to be filled by some enterprising ap

5. Conclusion :

Chotanagpur is the industrial centre of Bihar. The natural reso of this region provide the basis for vast industrial and mining comp

Outside capital, both indigenous and foreign, have ventured into this region and contributed to its development.

In spite of rapid industrialization, the effects have not been widespread. There is a tendency to start industries only where they are already established, and in urban centres. Jamshedpur and Dhanbad still attract new industrial units. Administrative centres like Hazaribagh, Ranchi and Chaibasa have industries close to them. This trend has led to the enlargement of municipal limits. A few other towns like Sindri, Giridih, Kodarma and Jhumri Tilaiya have come into prominence only because of the industrial and mining activities carried out in their vicinity. The new industrial centres of the region are today, not unlike oases in the midst of a desert where a primitive and undeveloped economy still prevail.

There is a steady flow of people to these industrial centres in search for work. They come from villages in and around the industrial cities, from other districts of Bihar, and also from outside the state, The number of job-seekers has been swelling during the past 3 years in the 12 employment exchanges in Chotanagpur. The pressure of this human flow is strongest in Ranchi and Marafari. In the Ranchi Employment Exchange the number of applicants went up from 20,176 in 1962 to 29,718 in 1965, whereas in Marafari, from 1962 to 1964, the numbers went up from 40,297 to 62,007. The placement percentage in Ranchi is 12.7% in industries and .2% in non-industrial sectors. The figures for Marafari are 20.8% and 7% respectively. In Ranchi 20% of those registered are oustiders — mostly from other States, particularly from the South. In Marafari, the percentage of outsiders is close to 31%. The concentration of educated and unemployed people constitutes a real problem in this region.

Although Chotanagpur has 62.5% of the industrial labour in Bihar, it is difficult to estimate the exact participation of tribals in industries. From the returns (48%) received to an enquiry conducted by the Chotanagpur Project among industries employing 100 or more workers, the following conclusions can be drawn:

i. The tribals constitute 27.4% of the industrial workers in the 36 units for which data has been received.

ii. The percentage of tribal workers is divided as follows by catagories:

Executives	.1
Supervisory-technical	1.3
Sk[illegible] workers	2.9
Sem[illegible] workers	3.8
[illegible]	4.6
[illegible]	.7

The trend noticed is that there are more tribals in the non-metallic than the metallic, engineering, and electrical industries.

The estimated industrial and mining expansion in Chotanagpur by 1970-71, referred to before, implies a total investment of Rs. 798.43 crores and an additional employment of 124,700 persons. Nearly 63% of these new entrants will be technical hands. This figure does not include the possible intake of labour in the small-scale industries envisaged around the Heavy Engineering Corporation, Ranchi, the Bokaro Steel Plant and in Adityapur.

The labour movement is weak and not yet in a position to stabilize the industrial system. Such weakness is reflected in poor finances, and in the very limited range of union activities and members' participation in union affairs. Unions continue to depend on outside leaders who bring with them their rivalries and a range of attitudes and political views which are not always conducive to the maintenance of the union as an economic unit. Most of these leaders are dependent on, or loyal to, one or other of the four labour federations — the INTUC, AITUC, HMS and UTUC-all of which are in turn dependent on political support. Labour management relations are equally unsatisfactory and are characterized by mutual lack of confidence. Direct cooperative arrangements, reflective of industrial harmony, are almost virtually absent.

There is a growing awareness to the fact that the present weakness must be overcome. Some labour leaders bring an increasingly 'trade union approach' to their tasks, and emphasize that political issues must be separated from trade union issues in the day-to-day activities of the union and in their relation with the employers.

A deep-rooted factor, responsible for the weakness of the labour movement, is the backwardness of the labour class which has yet to show a capaity for effective organization. All indications, therefore, point to the continuation of the present pattern.

The programme of workers' education can prove more efficient only if the trade unions and voluntary organizations take a more active part. Trade unions who sponsor the names of worker-teachers as participants in these programmes, do not usually like to send their most capable workers, fearing that they might turn against the union after receiving taining. Moreover, due to lack of zeal on the part of the worker-teachers, for want of any personal incentive either monetary or otherwise, the scheme has been dropped in several factories.

Thus Chotanagpur represents an intricate picture of great industrial potentialities, yet of a slow pioneering zeal. The human factor which is vital in industry is insufficienty cared for and reckoned with. Better results in intensive industrialization can be achieved only when capital and labour function in harmony, so as to maximise returns on investments.

The steps so far taken, are directed to create big industrial complexes, without first preparing the people to participate purposefully in operating them to their benefit. This gap has, therefore, to be filled by a conscious programmes of training and education adapted to the region.

II. THE CHURCH AND INDUSTRIALIZATION OF CHOTANAGPUR

The Church has been the life and light of the Chiristian population in the rural areas of Chotanagpur. It has stood by them in the past in their social and economic vicissitudes as a guide and defender. But never before has the presence of the Church been more imperative than today, in the wake of radical changes consequent upon rapid industrialization. On the whole, the Church's response to this challenge has been slow, her attitude one of respectful indifference.

This attitude can be ascribed to two reasons:

1. Having been established in a rural area, with most Christians engaged in agriculture, the rapid growth of industries, in isolated areas, has taken the Church by surprise, and despite these changes it has retained its rural character.

2. The Church has been solw in reading and understanding the signs of the times: It has failed to realize that it was founded in an area of great industrial potentialities, and in an area rich in both metals and minerals. This awareness should have dawned, at least, in the wake of Independence, when the nation began its struggle towards 'self-sufficiency'. Logically, it must have been apparent to the Church, for sometime, that the natural resources of Chotanagpur would, sooner or later, be exploited to the maximum, and that the area would gradually change from rural to urban, its economy from an agratian to an industrial one. For all practical purposes, however, the efforts of the Church remained, from the beginning, concentrated in the fields of teaching and healing and, until only comparatively recently, have efforts been made to further its endeavours in economic uplift through agricultural developments.

Today, the question which faces the Church is whether or not it should play an effective role in the changing situation. For the present, there seems to be full agreement in all quarters, that the Church should face this challenge squarely and should undertake its obligations and responsibilities, in this respect, more effectively than it has done before. Though there are institutions which are expressions of the Church's presence and activity in the urban and industrial sphere, these, in themselves, are so few, that it still appears as though the Church has, by and large, been taken

res by the sweeping changes which have taken place in the last two s or so. The challenge presently posed by industrialization, brings harp focus the inadequacy of the existing basic attitudes, and moti-s of Christians in Chotanagpur in general, and of the structures stitutions of the Church in particular. It also points the way to the different Churches in this area could possibly take to prepare their ers more effectively in meeting the situation. Today, the Church ically confronted with the task of taking her rightful place and g her presence felt in the midst of this social cataclysm.

ce 1955, there has been a growing realization of the need for the h's presence in the industrial area. This as led to the expansion Xavier Labour relations Institute in Jamshedpur, and the esta-ent of the Xavier Institute of Social Service in Ranchi. The main ives of these two institutions are now in the field of labour and ma-ent training, and industrial relations, in addition to conducting service in the surrounding community.

day, the following, institutions are a part of the Christian Churches' r to industrialization:

Xavier Labour Relations Institute, Jamshedpur

Xavier Institute of Social Service, Ranchi

Catholic Employment Bureau, Ranchi.

Young Christian Workers' Movement, Jamshedpur and Ranchi

Fourteen Trade and Craft Schools

Ecumenical Social and Industrial Institute, Durgapur

Technical Training Centre, Fudi

ne Xavier Labour Relations Institute, Jamshedpur :

is Institute was first started in a hotel room in Jamshedpur in 1949 ims of the Institute were :

To instil in the workers a sense of their duties and rights.

To train responsible men in industry, to the social principles of the Church

e timing of its establishment, in 1949, is important, since no other ution in Bihar, not even the Bihar University, offered such a course of at that time. As far as Jamshedpur was concerned, the Institute met need — educating the workers — because Jamshedpur was the most Industrialized district of Bihar. The course was purely confined to nployed men and was run on a part-time basis Being a new course dy, having a practical value, more and more students attended the s. The increased demand for this course called for a change in venue

and location. This was accomplished and the Institute moved from th hotel room to the Loyola School, and finally into its new campus in 1961 Today, it possesses its own building situated in a very picturesque settin in Jamshedpur. With its new physical environment and its independenc and permanence, the Institute has a considerably enhanced opportunity o accomplishing all the objectives it set out to achieve.

These objectives presently are :

i. A two years' Master's and two year Diploma course in Industria Relations and Welfare.

ii. The Steel Workers' College.

iii. A two year Post-graduate Programme in Management.

i. Master's Course and the Diploma Course in Industrial Relations an Welfare:

The syllabus of the two courses are identical. Since this is the onl Institute, in Ranchi University, offering the Master's Course, there is certain amount of latitude and flexibility permitted in running the cours

The Institute first offered the Master's Course in 1953. In 1956, a post graduate diploma course was introduced to meet the needs of those wh did not conform to the rigid admission requirements of Ranchi University According to these, graduates in Political Science, Commerce, History an Economics can alone be admitted. The Honours course is open to graduate in Arts, Commerce and Science. The students were given the option o choosing between the Institute or the University examination. But fron 1960 onwards this option was withdrawn. As matters stand at present the students have to choose between the Master's degree and the diplom course at the time of their admission to the Institute. It is planned by th Institute to drop the Master's degree course in time to come.

So far 600 students have graduated from the Institute. As at Septembe 1966, 38 students were in the first year and 53 in the second year.

ii. The Steel Workers' College:

In April 1965, the Steel Workers' College was started as a part of th Institute's activity. The idea owed its birth and consequent growth to th experience gained through earlier training programmes conducted at th Institute on behalf of the Indian National Iron and Steel Workers' Federa- tion. The college aims at providing trade union and leadership trainin at three levels:

i. *Periodical full-time residential courses in Jamshedpur for activ* and potential leaders.

ii. Full-time unit-level courses, on site, for committee members.

iii. *Part-time unit-level courses for rank and file members and for* [illegible] *workers.*

Since the accent in the training programme is on quality, the four [illegible] residential course offers a period of concentrated study and discussion [illegible] trade unionism, to a very select group consisting of a maximum of [illegible] members is conducted at the local union offices of the Federation. [illegible] ensure profitable discussion the maximum number of candidates for [illegible] course is fixed at twenty. The open course for members [illegible] the committee members' knowledge and [illegible] the rank and file members [illegible] forms the third phase of the [illegible] twenty-five candidates [illegible] This organized discussion [illegible] momentous and urgent problems [illegible]

During the three years of [illegible] the Steel Workers' College [illegible] held classes in Jamshedpur, [illegible]

iii. **Post-Graduate Programme in Management**

The Institute started a post-graduate [illegible] July 1966. The programme is of [illegible] diploma in management [illegible]

The aim of the programme is to [illegible] and prepare them for careers as business [illegible] course is limited to graduates who are [illegible] responsible positions, either in business [illegible] undergoing training, 37 in the first year [illegible] students are drawn from industries located [illegible]

In addition to teaching, the Institute [illegible]

a. Training in research methods and [illegible] for students.

b. Compilation and publication of [illegible] aids. The trade union wing of [illegible] published the following books [illegible] students of the Institute and trade [illegible]

i) Labour Laws and Trade Un[illegible]

ii) Preparing for the Agreem[illegible]

iii) Training Aids

iv) Arbitration

v) Personnel Management and [illegible]

c. Research studies by faculty members and associates. So far 30 research studies have been completed by faculty members and 600 by students.

The purpose of the Institute's research efforts are to develop a scholarly attitude in its students, and also to increase available knowledge on the different aspects of labour-management relations.

The Institute has also an extension service wing available to union, management or public groups. Members of the staff go to collieries and factories to conduct courses in trade unions, help the Jamshedpur Productivity Council to run courses for both management and labour, and go as guest lecturers to other institutes. Post-graduate students possessing the requisite ability and interest, occasionally assist in conferences and courses carried out in various places under the extension programmes.

"The progress of the Institute, from a modest beginning in the year 1943, to its present position as one of the leading centres of Industrial Relations Studies in the country, is in itself a positive proof of the commendable achievements of the Institute in its own sphere of education."[1] The two courses for top management and middle management, plus the steel workers' college, try to meet the increasing demand from all levels of employment in industry.

2. Xavier Institute of Social Service, Ranchi:

In 1955, the Xavier Institute of Social Service was started as a contribution of St. Xavier's College, Ranchi, to the education of the working class and also to perform social service for the benefit of under-privileged sections of the community in Ranchi. Since then, the Institute has grown to such an extent that it stands on par with other institutions in Bihar and West Bengal, teaching courses in social and labour welfare.

Today the Institute has started catering more and more to the needs of the growing industries in and around Ranchi, and at present its principal purpose is to prepare responsible and well-qualified leaders in the fields of industrial relations, labour management and social welfare.

To achieve this objective, the Institute provides a comprehensive two year post-graduate course, both theoretical and practical, leading to the post-graduate diploma recognized by the Central, Bihar and West Bengal Governments. This diploma is awarded by the Indian Social Institute, New Delhi. So far 126 students have been awarded the diploma. Emphasis is also placed on social service, in order to instill in the students correct social attitudes, and to equip them with sound knowledge and necessary technical skills. It prepares them for service in the welfare and personnel departments of industries or related institutions.

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1. Mr. Michael John, President of the INTUS, delivering the 1961 convocation address.

For junior industrial executives and businessmen keen on acquainting themselves with the basic ideas and skills of scientific management, a one year course in Industrial Management was organized in 1964. The course has, however, been suspended for the time-being. During the two years of its existence 46 students drawn from the public and private sectors of industry, in Ranchi, availed themselves of this course.

Three extension courses in collaboration with the Ranchi Productivity Council were conducted in 1964-65. They were:

a. A training course on Basic Elements of Trade Unionism.

b. A training course in Labour Law for Industrial and Trade Union Executives

and c. A training course in Industrial Relations.

For the benefit of the community at large the Institute conducted the following social extension courses :

a. Orientation Course for Pastors in Industrial areas.

b Summer Course for Christian Workers.

The Institute also arranges seminars and symposia, for the presentation and discussion of problems which Labour Welfare Officers, Management, Trade Unions and various welfare institutions have to face. To this effect the Institute works in close collaboration with the Ranchi Productivity Council, and the Ranchi Branch of the Indian Institute of Personnel Management.

Apart from teaching and research the Institute offers the following additional services :

a. Child guidance clinic on a weekly basis conducted by a team of doctors and psychologists of the Indian Mental Hospital in the premises of the Institute. (This service has so far received very poor response and it will probably be discontinued)

b. Compensation cases of workers disabled in the course of employment are taken up by the social case workers of the Institute

A survey of the families of the victims of the 'Dhori Colliery Disaster' (1964) was conducted by the staff and students of the Institute for the Dhai Rehabilitation Committee to evaluate the urgent needs of the affected families.

Social service centres are being run on a weekly basis in t areas of Ranchi town.

Since 1958, Ranchi has figured as an industrial city in

besides being the nerve centre of administration. It has 21.9% of the industrial and mining enterprises of Chotanagpur. Most of the giant industrial units are in the public sector and they are not fully commissioned as yet. Once they become fully operational, quite a number of small scale and medium industries are likely to spring up. The anticipated growth of industries will lead to an increase in the number of workers. Considering the over-all industrial development of this district, the scope of this Institute is clear and emphatic.

Both these institutes are doing similar work, and it would be highly desirable, if, in the future, they could work in a more integrated way than they have hitherto done. Though these Institutes do not primarily cater to the tribals, or help them face the challenge of industrialization, they offer the services of the Church to industrial society as a whole, and aim at influencing industrial relations in Chotanagpur. Consequently, very few Christians have, so far, profitted from their activities. One would even be justified in expressing the hope that both these Institutes now plan their activities together, taking into account the problems industrialization has brought into this region. They would do well to try to be of more direct service to the workers than they have been till now.

3. The Catholic Employment Bureau, Ranchi :

As its name implies, the Catholic Employment Bureau, founded in 1956, is a service agency engaged in securing employment for those that are unemployed. It has close contacts with a few employers, both public and private, as well as the Ranchi Employment Exchange. When job vacancies are notified to the agency either through private correspondence or through newspapers, the Director circulates the news to Catholic schools and parishes. The Parish Priests announce the news in the Church, and the headmasters in the schools. The students pass around the word to their unemployed friends and relatives.

When the applicants appear at the Employment Bureau, some data including their qualification and experience are noted. The Director then takes them to the prospective employer or to the local Employment Exchange Office, as the case may be, for an interview. Only those whose qualification and experience warrant possible appointment are taken to a prospective employer. The others are put on a waiting list.

The bulk of those who seek the Bureau's help are unskilled workers, and farm labourers, in the age group 20-30. Except for a few women applicants, almost all of these are men, who come there once in a while. Matriculate boys form the second largest number of jobseekers. The third group includes middle aged men and women who seek employment as domestics. The applicants are mostly Christians but non-Christians are al[illegible] as and when they approac[illegible] Bureau.

Soo[illegible] blishment, the B[illegible] very active in sending

labourers into Assam and the Andaman islands, but for the past few years this service has been discontinued. At present, the Bureau's main activity is sending contract workers to work in the brick industry, construction work etc. Apart from this, it also receives applications from a few graduates looking for government jobs. Once, however, they are given guidance and information on various possibilities, they themselves take care of the rest of the procedures leading to their placement.

The Christian Council of Vocational Guidance is yet another activity of the Employment Bureau. This is a joint effort, of all Christian denominations in Ranchi, to study problems relating to employment and vocational guidance. The Council provides ample opportunities for making useful contacts for employment and reviews Christian participation in growing industrial and business activities. It has come out with useful suggestions to enable local Christians in taking a keen interest in getting themselves *better adapted to the changing situation in this area.*

The Council studies aspects of aptitudes, and the training of local people for jobs in industry. On the basis of these findings, it advises educational institutions as to what should be done to promote greater and better employment prospects for Christian youth.

The Bureau has a vital role to play in helping the local people obtain industrial employment. Unfortunately, till now, it has not been sufficiently equipped with either a proper office or a staff, and has not, therefore, been able to work in a methodical and on a permanent basis.

4. Young Christian Workers' Movement, Jamshedpur & Ranchi:

The Y.C.W. Movement founded in 1882, in Belgium was established in Jamshedpur and Ranchi Dioceses in 1961. In the Jamshedpur diocese, the movement is confined to the factory area or to Jamshedpur town only. In the Ranchi Archdiocese, it is functioning in Ranchi town, Bhurkunda and Bokaro.

The Y.C.W. Movement is a forum for specialized lay apostolate. Its efforts are ditected to :

i. *help the young workers, within the context of their daily life,* to realize their dignity as human beings and as children of God;

ii. train, educate and serve workers in helping them to discover their rights and responsibilities as loyal and dutiful citizens, and members of the Church;

iii. help young workers seek wholesome Christian solutions, to the problems of their lives, through the study and practice of the life of Christ and the social teachings of the Church as contained in [illegible] encyclicals.

It is apparant from a report which we have studied, that the units o Jamshedpur and Ranchi dioceses are functioning as social service bodie During the last 5 years, the Y.C.W. *movement* has grown fairly well, a the increase in its membership reveals. However, its active members ar still very few. At present Jamshedpur has a total membership of onl 56 while that of Ranchi is 167.

Y.C.W. is not a trade union. It does not, in any way, challenge o replace unions, nor does it limit itself to the social field. Its purpose is t bring about the presence of the Church among the working youth of al faiths, to help them to share in the life of the Chruch. Hence it encourage trade unions and collaborates with them in all rightful activities calculate *for the betterment of wage-earners. Its members consider it a primar* duty to join the trade unions and to take active part in the labour move ment. Through publications, meetings and study programmes, it endeavour to give its members a new outlook on trade unionism.

The continuous training Y.C.W. imparts, helps the members to be leader of trade unions. In the Ranchi diocese nearly 73 Y.C.W. members are active trade union members and 4 hold responsible positions in trade unions

5. Trade and Craft Schools:

In addition to those institutions we have covered in the foregoing paragraphs, there are 14 technical schools in Chotanagpur run by the Church. They are ordinary craft schools meant for young boys and girls. Of these schools, 1 is a carpentry school, 3 are commercial institutes and 10 are weaving and tailoring centres.

The carpentry school and the 3 commercial institutes are the only institutions teaching young men a trade. The weaving and tailoring schools are exclusively for girls. All the craft schools are, at present, functioning with difficulty. The lack of finance and personnel, and the lack of preseverance on the part of the students to pursue a course of training until its logical conclusion are the main problems which these institutions are facing.

6. The Ecumenical Social and Industrial Institute, Durgapur:

The Ecumenical Social and Industrial Institute, at Durgapur, was founded in 1963 through the combined effort of a group of Christian Churches working in the industrial belt of India. The two objectives of the Institute are :

i. To serve industrial society in the new industrial town of Durgapur. This objective is being fulfilled by the joint action project —Durga*pur Industrial Service.*

ii. To provide a centre for training, research and national development, in urban-industrial centres, for the Churches in India.

The aim of the Durgapur Industrial Service is to help clarify the human, social and ethical issues of life in Durgapur, to help people and groups to face and solve their problems together, and thus to contribute to the building of a responsible and just human life. It carries out direct work with industry, by maintaining close contacts with unions and managements, conducting seminars on labour and management topics, and publishing topical papers on industrial problems. It serves the community by working with existing social centres and planning organizations, undertaking community development work in selected areas and organizing orientation courses for foreign personnel. Its work with the Church includes the organization of small groups of those sharing a common life, like workers and teachers, and a "fellowship of Christ the Worker", linking these groups. Besides this, new forms of worship suited to industrial society are being experimented upon.

"Training, research and national development work" includes the following :

i. Industrial service training programme consisting of annual orientation courses for the main theological colleges, an annual three month course for urban-industrial Church workers, and courses for lay leaders present in the industrial community.

ii. Urban-industrial research programmes are planned in collaboration with other research agencies in Chotanagpur and [illegible]. The development of a research programme and a team of experts on a national scale, in different aspects of industry and industrial society, is in the offing.

iii. The industrial service national development programme is done through the publication of a journal entitled "[illegible] India" and an annual study conference for those engaged in industrial service work in India. The programme includes courses in other industrial centres also.

"The Institute is starting on a programme which I think is both vital and exciting. Here is the Church's attempt to serve the new India which has sprung to life in the 400 mile industrial belt stretching from Bengal through Bihar into Orissa...The Church must be increasingly concerned with the great things happening around us rather than sink into an introspective stupor".[1]

The objectives and scope of the Institute are broad, ambitious and promising. It is too early to say to what extent the Institute will make a real impact and be able to [illegible] contacts. The more this Institute works in cooperation with the Institutes at [illegible], the more useful work it is likely to do for the Church.

1. The Most Rev. [illegible], Bishop of [illegible] and Metropolitan of the Church of India.

7. Technical Training Centre, Fudi:

In 1961, the Gossner Evangelical Lutheran Church of Chotanagpu and Assam established the Technical Training Centre, Fudi, near Ranch The intention was to erect a small industrial undertaking in which youn men could gain practical experience of the changed conditions of life an work under industrial surroundings. It was to be a training-cum-productio centre.

Today, the training department of the T.T.C. at Fudi conducts course for fitters, welders, and carpenters. Each course lasts three years and divided into six terms. The minimum qualification for admission is th 9th class. This department is affiliated with the National Council of Voca tional Trades, and its trainees are permitted to sit for the examination con ducted by the Government of India. Every student receives a privat certificate from the T.T.C. Fudi, after passing the required tests. Thirtysi students have, so far, been trained in the following trades :

Fitters	15
Carpenters	14
Welders	7
	36

Of these, 28 are tribals and 8 are of other denominations. At presen there are 16 students (13 tribals and 3 others) undergoing training; all ar in the carpentry section.

According to the Superintendent of the Centre, 3 of the past student are suitably employed in industries while others are engaged in productio either at the Centre or elsewhere.

The production department is totally separate from the training depart ment, though the fact that production takes place side by side with th training classes, now offers the added advantage of demonstrating norma working conditions to the students. Production work is done totally b skilled workers, under experienced supervision. The different sections o this department are :

The Wood Section

The Metal Section

The Building Section

The T.T.C. is ready to serve everyone in need; there are no restriction on applicants on the basis of caste or creed.

8. Church and the Tribals :

There is imperative need for the Church to show a greater her presence in the industrial centres of Chotanagpur. Ind is gradually spreading to the rural areas of this region. Again pur, because of its rich potentialities, is ear-marked for vigorou activity and industrial expansion. It is a tragic fact, howeve Christian population in this area—mainly tribals—still live in a underdeveloped economy, and are not fully aware of the magnit changes that are taking place. The Church should now ac responsibility of seeing that the transition from a rural to an urban, an agricultural to an industrial economy is both, fast and smooth, should play a more active and meaningful role in preparing her m for these, and other changes and trends which lie ahead

For the tribals, industrialization poses a two-fold challenge. F they are 'broken in' to the industrial way of life with its regular ro Secondly, they have to live with non-tribals who are of a different ground for, industrial development attracts outsiders to Chotanagpur because of their richer cultural heritage and better education, occupy positions in industry and society. The tribals, mainly rural, now hav compete with such men in all walks of life and, in such a competitive atm phere, they run the danger of being reduced to the status of displaced perso in their own homeland.

Today, though industrialization has uprooted many adivasis from the villages, it has also increased their physical and social mobility, and facilitated heir social, economic and political integration into the larger society to hich they belong.

To help tribals keep in tune with the new changes, and to enable them to take their rightful place in industry, a comprehensive scheme for general and technical education has to be evolved

9. General Education:

Through a wide net-work of schools, the Church is already doing magnificent work in imparting general education to the people of this area. Some inadequacies in this system are, however, beginning to be increasingly revealed and these need to be more seriously examined now. Amongst a few that merit consideration are :

a) *Wastage:* The rate of 'drop outs' in education is very large and points to some serious draw-backs in the system. Roughly speaking, the position in 1966, among the Ranchi Archdiocese Catholics, (Ranchi, Hazaribagh and Palamau) was that *all* Catholic boys, of the primary school age group, theoretically attended Catholic schools but only two out of three succeeded in passing the primary. One, out of every two boys, entered the middle school, and only one, out of three, passed the middle .

One, out of every four boys entered high school, though only one, out of every ten, passed the matriculation. Again, one out of every fifteen boys went to college, and only one, out of 40 ended up with a degree.[1]

b) *Lowering of standards:* The rush for education has caused a mushroom growth of schools resulting in "overburdening manpower." This has led to poor staffing in schools and the general trend has been to go in for quantity at the expense of quality.

The future pattern of general education, in Chotanagpur, has to be cast avoiding the foregoing gaps, and it has to be geared to place greater accent now on transforming the tribal attitude of indifference and isolation to one of conscious participation.

10. Technical Education:

The tribals need encouragement to avail themselves of all the opportunities open to them in technical institutions. In spite of incentives offered by the government, their representation in engineering, technology and medicine is still infinitely small. In one case, the seats reserved for "tribals" at a particular institution were thrown open to the general public, since there were no tribal applicants. Even in small industrial training institutes, there are currently very few tribals employed (17%). It is fairly apparent too, that the 14 schools working under the auspices of the Church do not adequately prepare young people for industrial employment in the correct sense of the word.

Owing to the lack of emphasis on science and mathematics at the school level, tribal students feel discouraged from going in for science and professional studies. Coupled with this, their low achievement motivation keeps them away from technical education which would enable them to find better placements in life.

According to a survey conducted by the National Small Industries Corporation, the technical hands which will be required for the development of small scale industries in the next decade are nearly 9,500. The demand from the giant industrial units envisaged in the IVth Plan is estimated to be 78,561. The question is how many of the total 88,061 technicians required could possibly be tribals?

There is still scope for technical institutes in Chotanagpur. Before any new venture is embarked upon, however, a careful study of the existing ones, particularly their capacities, facilities, courses of study and staffing has to be systematically undertaken. For example, there has been an increasing demand for a technical institute to be started and run under the Ranchi archdiocese. Nevertheless, the Technical Training Centre at Fudi,

1. Van Troy S. J., Background data on the demographic, religious and educational situation in Chotanagpur p. 5.

established by the G.E.L. Church with all modern facilities, is now operating under capacity. Surprisingly enough this institution has not yet captured the imagination of adivasi youth. The distance from Ranchi, and the discipline and training to which the boys are expected to subject themselves as part of the preparation necessary for the hard discipline involved in skilled jobs, appears to frighten away the youth. Fudi is a case in point of an institute catering to a need which, to all appearances, is really 'felt', yet which does not get across to those towards whom it is directed. This problem underlines the necessity of very carefully studying and planning any new venture, or further expansion of Church-sponsored technical education.

II. Small scale Industries:

It is frequently asked why the Church should be shy of entering the field of industry, when she is already vigorously engaged in agriculture. The tangible progress registered by Christians in farming is largely owing to the unstinted efforts of the Church through institutions like the Chotanagpur Co-operative Credit Society. Cannot there be an institution, smilar to this Society which can break new ground for the Church in industry?

The tribals should be helped to take advantage of schemes put forward through the Rural Industries Programme in Ranchi, Palamau and Santal Paraganas. These are comprehensive schemes to train artisans and eventually finance them to establish their own enterprises Small scale industries too, offer vital opportunities to develop local entrepreneurship. The cluster of small industries planned at the Heavy Engineering Corporation, Ranchi, Bokaro Steel and Remgarh presently offer preference to tribal entrepreneurship. Technical advice and funds are available for such ventures.

The Central Small Industries Organization of the Ministry of Industry and Supply, Government of India, conducted an industrial survey of Chotanagpur in 1965. Detailed analysis of the industrial potentialities of each district (except Hazaribagh) have now been published. The report enumerates the number of possible small scale industries that can be started in this area. With a minimum investment of Rs. 40,000 and a maximum of Rs. 4 lakhs, small scale units afford employment from 10 to 60 men, e.g.:

i. A fruit and vegetable preservation and canning unit having a capacity of Rs. 1.20 lakh lbs. per annum, with a capital investment of Rs. 1.75 lakhs can be set up in Ranchi. This unit will provide employment to 10 to 15 persons.

ii. A tannery, at Lohardaga, with an investment of Rs. 3.5 lakhs is likely to provide employment to about 50 persons.

iii. A unit manufacturing wood-based stationery, and other utility articles, can be encouraged in Ranchi where there is an abundant supply of wood and wood-waste from saw-mills. The investment

in machinery and equipment is likely to be Rs. 40,000 and will provide employment to 20 persons.

Since most of the industries are either resource-based or demand-based, the development of these units have tremendous scope. The establishment of large industries in Chotanagpur augurs well for the area, and promises in its wake, a rapid industrial transformation. The small scale sector has only to rise to the occasion and take full advantage of the benefits—direct and indirect—accruing from the growth of these mammoth industrial complexes.

12. The Church and Industry (Summary and Evalucation):

The direct involvement of the Church in industry can be in the field of labour education and research and the trade union movement.

Labour education and research : The Workers' Education Scheme, organized by the Government of India, is functioning fairly well in Dhanbad, Jamshedpur and Ranchi. In spite of its good work, however, the scheme does not cater to all the demands of the workers; hence there are gaps in its entire structure. As stated earlier, the scheme lays greater stress on quantity. Its much neglected qualitative aspects are areas in which the Church can play a significant role. Again, the Government-sponsored workers' education scheme suffers a good deal at the hands of trade union leaders, who inject their own personal and political rivalries into the scheme making it altogether less effective. Political motives are apparent even in the selection of workers for the course. Thus the Workers' Education Scheme today is handicapped by its own weakness, and the apathy and indifference evinced towards it by the workers themselves.

The Church could plan a double pronged programme of spreading basic literacy and trade union education amongst industrial workers and the programme could well be executed by joint collaboration between the Xavier Institute of Social Service and the Xavier Labour Relations Institute.

Further, the increasing number of workers in mines and factories, and the rising trend of industrial unrest in Chotanagpur, presently demand the attention and services of the Church. Scientific studies have to be made to understand the forces at play in labour-management relations. The Chotanagpur Project of the Indian Social Institute views with certain misgivings the fact that, so far, very little of basic and applied research in the labour field has been done by our institutions. Matters of topical interest such as trade union recognition, bounds and gheraos etc. still remain untouched by the institutions engaged in labour-management education in the area.

Trade unions : Nearly 46.4% of the workers in Chotanagpur are un-unionized, the rest are divided among 254 different trade unions, making their positions as labour, weak and ineffective. As pointed out earlier,

trade union activity in Chotanagpur is largely characterized by outside leadership, the lack of co-operation from the workers, and inter-union rivalry. Here the Church's role could be one of liberating the worker and his movement from all the shackles that presently bind them.

However, there are divergent views on the Church's involvement in the trade union movement for there is no other activity of the Church which runs closer to politics than an active participation in labour matters. Hence it is understandable that the Church continue to be strictly cautious in extending her activities into the Trade Union Movement. Her presence in the labour field becomes even more difficult and intriguing, since both the institutions at Jamshedpur and Ranchi are guided largely and run by foreign personnel. Any active role of the Church in labour activities, therefore, is liable to be misinterpreted and misconstrued. It would be more appropriate, consequently, if laymen and religious of Indian origin take the lead in guiding the Church in the trade union movement. Their mission should not be to create cross-currents by founding separate Christian trade unions, but to strengthen and sustain existing ones and to bring more life and vigour to the trade union movement.

In view of the tasks enumerated above, the following plan of coordinated activities between the institutes at Jamshedpur, Ranchi and Durgapur may be considered.

The functions of the Xavier Labour Relations Institute, the Xavier Institute of Social Service and the Ecumenical Social and Industrial Institute have to be planned and performed taking into account the existing conditions and future industrial expansion trends in Chotanagpur in particular, and in North-East India in general. All three bodies are, in their own way, supposed to be undertaking what might be termed as the 'industrial mission of the Church' in this region. It is unfortunate that their collective impact, from the point of view of the Church as a whole, is not as strong and effective as it should be, and it is felt that this may be due to an improper appreciation of the felt-needs of the people of Chotanagpur. For example, Dhanbad and Hazaribagh having 61.4% workers of Chotanagpur so far, have not been touched by the activities of these institutes. Since most of the future industrial activity is concentrated in these two districts, the institutes should pay greater attention to them.

Workers' education : The time is not yet far spent for a crash programme of workers' education to be executed through a worker-education centre. This centre need not be considered as a duplication of the trade union college run by the Xavier Labour Relations Institute. Since this college is meant for steel workers, and that too, for members of a particular union (The Indian National Iron and Steel Workers Federation of the INTUC), it neither touches all the workers of the same industry belonging to different unions, nor other workers of various other industries and mining.

This centre should impart general education besides training workers as

responsible trade unionists. A competent consultancy service could also be organized by this centre. This activity may consume a lot of the time of the teaching staff, and to a certain extent finances too. Perhaps also this might not be greatly appreciated if misunderstood or misinterpreted. Yet the consultancy service should have a place in the centre as this brings the worker closer to the institution.

Extension service : It goes without saying that this centre needs to have an elaborate extension programme. Apart from running regular or ad hoc courses in its premises, the teaching personnel should conduct classes in mines and factories so as to spread worker-education to all sections of the labour force. In a residential course at the centre, the potential trade union leaders or the trade union officials are usually the only ones that can be expected to attend. An ordinary worker may not receive a chance of getting his name sponsored owing to trade union politics. In addition, the financial commitment a union bears in sponsoring candidates for a residential course of this nature, often discourages less fortunate unions from taking advantage of the course. Hence there is the danger of the centre catering solely to the needs of 'well-to-do' unions. This will eventually lead to the creation of an aristocracy of trade unionists. The only way in which this danger can possibly be avoided, is through the organization of an efficient extension service.

Research : Ranchi could become a research centre of industrial relations and management studies. Since the future industrial expansion is in the Ranchi-Hazaribagh-Dhanbad region, a research centre in this developing area, can better diagnose the problems than a centre in an 'industrially settled' town like Jamshedpur. The problems of this developing area have yet to be comprehensively studied in all their many aspects. This is an enormous task, and it has to be undertaken very systematically. This centre has to keep in close contact with the Xavier Labour Relations Institute, Jamshedpur. The research centre has to be seen as a necessary and complementary section of the teaching department.

Management studies : The Institute at Jamshedpur has now embarked upon management studies. Quite a big investment has been made in personnel and physical facilities. This entire venture has to be seen as a new apostolate; hence it should be helped to develop into an ideal centre.

Social service course : There is a growing need for trained social workers in Chotanagpur. Whether a professional course should be run or whether short-term courses for those already involved in social service, are questions needing study, depending on the situation. The Xavier Institute of Social Service could eventually take up this task. Courses of short-duration for the benefit of the community at large could be conducted by this Institute too.

In conclusion, therefore, the Church in Chotanagpur today faces a dual task: a) the tribals have to be given the right orientation and training so as

to enable them to take maximum advantage of the changes currently being brought about by industrialization, b) the Church has to ensure her presence in the factories and mines.

The first task can largely be performed through education: education to to instil into the basic attitudes of the people necessary skills to face the industrial way of life and thereby to take fuller advantage of the new lines of employment being opened to them.

The second task—the Church's duty towards the workers—can only be discharged when the Xavier Labour Relations Institute, the Xavier Institute of Social Service and the Ecumenical Social and Industrial Institute diversify their activities, and aim at covering the entire area with the knowledge and skill they have collectively accumulated through these years.

Finally, the Church should explore all possibilities for collaboration with other Churches and secular institutions. Co-operation between different religious groups, as also between religious and secular organizations, can bring great vigour and effectiveness to a much needed apostolate in Chota-nagpur, where there is at present an acute shortage of resources, finance and personnel.

APPENDIX I: TABLE 1

Number of Registered Factories in Singhbhum in 1940, 1958 and 1965

Type of Factories	1940		1058		1965	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
1. Engineering	5	1991	27	6905	54	31234
2. Railway Workshops	3	1763	1	926	1	1447
3. Minerals and Metals	5	32508	23	34389	32	44943
4. Chemical	2	106	1	78	6	139
5. Printing	1	76	24	240	27	270
6. Saw Mill	2	41	42	361	92	689
7. Rice and Oil Mill	6	361	82	648	313	814
8. Bidi	—	—	310	6838	40	1379
9. Stone Dressing	—	—	2	53	8	223
10. Confectionery	—	—	3	69	3	63
11. Furniture	—	—	3	97	4	70
12. Glass	—	—	1	616	2	691
13. Sanitary Equipment	—	—	7	185	7	157
14. Electricity Generation	—	—	3	47	34	205
15. Ice and Ice Candy	—	—	1	13	2	26
16. Cold Storage	—	—	1	16	1	12
17. Gas Manufacture	—	—	1	110	2	182
18. Cement and Asbestos	—	—	2	1116	28	3085

19. Petroleum	—	—	1	19	2	20
20. Hosiery	—	—	1	25	1	15
21. Lac	—	—	11	252	11	165
22. Tyre	—	—	—	—	3	39
23. Dyeing	—	—	—	—	1	17
24. Water Supply	—	—	—	—	6	145
TOTAL	24	36846	547	53003	680	86030

Source: Chief Inspector of Factories, Government of Bihar.

APPENDIX 1 : TABLE 2

Number of Registered Factories in Dhanbad in 1940, 1958 and 1965

Type of Factories	1940		1958		1965	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
1. Engineering	17	3181	68	4851	116	6399
2. Railway Workshop	1	346	—	—	—	—
3. Smelting and Rolling	3	1073	—	—	—	—
4. Rice and Oil Mills	5	275	962	4372	344	822
5. Chemicals	1	36	4	5244	6	4502
6. Cement	1	25	2	642	1	252
7. Stone Dressing	1	19	4	183	8	286
8. Bricks and Tiles	9	5477	15	7623	17	6712
9. Lac	11	1193	2	53	—	—
10. Electricity Lamps	—	—	1	446	3	568
11. Electricity Generation	—	—	11	586	27	771
12. Saw Mill	—	—	18	181	36	313
13. Printing	—	—	5	55	11	132
14. Ice and Ice Candy	—	—	1	15	1	14
15. Water Supply	—	—	2	114	8	286
16. Petroleum	—	—	5	498	3	36
17. Coke Ovens	—	—	4	1386	6	2016
18. Confectionery	—	—	—	—	4	45

APPENDIX 1 : TABLE 2

Number of Registered Factories in Dhanbad in 1940, 1958 and 1965

Type of Factories	1940		1958		1965	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
1. Engineering	17	3181	68	4851	116	6399
2. Railway Workshop	1	346	—	—	—	—
3. Smelting and Rolling	3	1073	—	—	—	—
4. Rice and Oil Mills	5	275	962	4372	344	822
5. Chemicals	1	36	4	5244	6	4502
6. Cement	1	25	2	642	1	252
7. Stone Dressing	1	19	4	183	8	286
8. Bricks and Tiles	9	5477	15	7623	17	6712
9. Lac	11	1193	2	53	—	—
10. Electricity Lamps	—	—	1	446	3	568
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15. Water Supply	—	—	2	114	8	286
16. Petroleum	—	—	5	498	3	36
17. Coke Ovens	—	—	4	1386	6	2016
18. Confectionery	—	—	—	—	4	45

19. Cold Storage	—	—	—	—	2	33
20. Coal Washery	—	—	—	—	3	914
21. Tar Products	—	—	—	—	3	366
22. Dyeing	—	—	—	—	1	13
23. Tyres	—	—	—	—	6	60
TOTAL	49	11625	1105	26775	606	25097

Source: Chief Inspector of Factories, Bihar.

APPENDIX 1 : TABLE 3

Number of Registered Factories in Ranchi in 1940, 1958 and 1965

Type of Factories	1940		1958		1965	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
1. Engineering	1	205	42	964	120	2992
2. Distillery	1	50	1	58	1	40
3. Rice and Oil Mill	12	98	72	218	220	595
4. Printing	1	55	20	332	23	387
5. Cement	1	630	3	789	8	878
6. Tea	3	307	1	47	2	35
7. Lac	4	197	25	769	19	534
8. Confectionery	—	—	1	15	7	116
9. Hosiery	—	—	1	39	1	30
10. Textile Bleaching	—	—	1	24	2	47
11. Furniture	—	—	4	87	4	150
12. Chemicals	—	—	1	108	3	167
13. Bricks and Tiles	—	—	1	22	9	680
14. Electricity Generation	—	—	3	38	13	93
15. Bidi	—	—	1	27	3	53
16. Plastic	—	—	1	16	9	89
17. Sawing	—	—	24	240	85	889

Electricity Generation ...						
8. Cold Storage	—	—	1	27	2	71
9. Stone Dressing	—	—	1	20	20	387
0. Petroleum	—	—	2	23	1	11
1. Cotton	—	—	—	—	3	557
2. Leather	—	—	—	—	2	50
3. Paper	—	—	—	—	1	12
4. Iron and Steel Smelting	—	—	—	—	15	6626
5. Water Supply	—	—	—	—	1	50
6. Aluminium	—	—	—	—	1	657
7. Storage Batteries	—	—	—	—	1	10
8. Plywood	—	—	—	—	1	18
9. Tyres	—	—	—	—	2	23
0. Gas	—	—	—	—	4	60
1. Dyeing	—	—	—	—	2	24
TOTAL	23	1542	206	3863	585	16331

Source. Chief Inspector of Factories, Government of Bihar

APPENDIX 1: TABLE 4

Number of Registered Factories in Hazaribagh in 1940, 1958 and 1965

Types of Factories	1940		1958		1965	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
ngineering	2	38	31	1074	74	1763
Railway Workshop	1	278	—	—	—	—
Coach Building and Motor Repairing	1	12	—	—	—	—
4. Iron and Steel Smelting	2	204	1	443	—	—
5. Stone Dressing	1	48	—	—	6	146
Rice and Oil Mills	—	—	95	169	149	436
Textile Bleaching	—	—	3	363	1	308
Furniture	—	—	3	37	3	30
Chemicals	—	—	1	10	5	1043
10. Glass	—	—	2	1406	7	2097
11. Electricity Generation	—	—	12	817	36	1894
12. Cutlery	—	—	1	48	2	48
13. Saw Mill	—	—	9	91	33	330
14. Printing	—	—	6	61	8	88
15. Mica	—	—	154	12262	232	11885
16. Coke Ovens	—	—	1	195	1	239

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15. Mica						
16. Coke Ovens						
17. Bricks	—	—	—	—	8	1113
18. Hosiery	—	—	—	—	2	27
19. Sanitary Equipment	—	—	—	-	1	16
20. Cold Storage	—	—	—	-	3	37
21. Dyeing	—	—	—	-	1	10
22. Coal Washery	—	—	—	-	1	1368
23. Water Supply	—	—	-	-	3	35
TOTAL	7	923	319	16976	576	22913

Source: Chief Inspector of Factories, Government of Bihar.

APPENDIX 1 : TABLE 5

Number of Registered Factories in Santal Parganas in 1940, 1958 and 1965

Types of Factories	1940		1958		1965	
	No. of Factories	No. of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
1. Engineering	1	30	12	202	41	570
2. Mica	1	185	—	—	—	—
3. Rice and Oil Mills	13	832	115	604	325	1118
4. Stone Dressing	4	161	2	79	13	618
5. Lac	1	65	4	150	1	26
6. Confectionery	—	—	1	11	1	10
7. Furniture	—	—	1	16	2	105
8. Chemical	—	—	2	57	4	115
9. Electricity Generation	—	—	8	71	11	129
10. Bidi	—	—	12	270	9	177
11. Sawing Mill	—	—	4	13	1	13
12. Printing	—	—	14	99	8	83
13. Ice and Ice Candy	—	—	1	10	—	—
14. Jute Boiling and Pressing	—	—	—	—	2	28
15. Cotton	—	—	—	—	2	20
16. Pottery	—	—	—	—	1	68
17. Dyeing	—	—	—	—	1	48
TOTAL	20	1273	176	1581	422	3128

Source: Chief Inspector of Factories, Government of Bihar.

APPENDIX 1 : TABLE 6

Number of Registered Factories in Palamau in 1940, 1958 and 1965

	Types of Factories	1940		1958		1965	
		No. of Factories	No of Workers	No. of Factories	No. of Workers	No. of Factories	No. of Workers
1	Cement	1	1099	2	1345	3	1493
2	Rice and Oil Mill	—	—	29	78	69	197
3	Electricity Generation	—	—	2	25	3	30
4	Lac	—	—	26	725	30	908
5	Bidi	—	—	2	76	3	63
6	Saw Mill	—	—	9	92	25	258
7	Printing	—	—	6	65	5	50
8	Engineering	—	—	4	47	7	74
9	Water Supply			1	16	1	13
10	Stone Dressing	—	—	—	—	1	18
11	Glass	—		-		1	100
	Total	1	1099	81	2469	148	3204

Source: Chief Inspector of Factories, Government of Bihar

APPENDIX II : TABLE 1

Number of Mines in Singhbhum in 1940, 1958 and 1965

Types of Mines	1940		1958		1965	
	No. of Mines	No. of Workers	No. of Mines	No. of Workers	No. of Mines	No. of Workers
1. China Clay	6	1911	14	2384	14	2441
2. Chromite	13	1000	2	382	1	12
3. Copper	4	2614	4	4400	3	4081
4. Iron-Ore	19	10102	24	12315	36	11794
5. Kyanite	1	60	3	22	10	609
6. Limestone — Gravel	5	3196	4	844	3	6942
7. Manganese	10	1720	7	536	2	233
8. Steatite	1	30	—	—	—	—
9. Apatite	—	—	1	27	5	209
10. Asbestos	—	—	2	32	5	250
11. Stone	—	—	1	110	1	87
12. Silica	—	—	1	164	—	—
13. Quartz	—	—	3	508	1	71
14. Dolomite	—	—	—	—	1	19
15. Slate	—	—	—	—	1	20
TOTAL	59	20642	66	21824	83	26768

Source: Chief Inspector of Mines, Government of India.

Number of Mines in Dhanbad in 1940, 1958 and 1965

		1940		1958		1965	
	Types of Mines	No. of Mines	No. of Workers	No. of Mines	No. of Workers	No. of Mines	No. of Workers
1	Coal	238	73542	435	139979	377	145616
2.	Fire Clay	4	178	14	247	9	199
3.	Gold	2	189	—	—	—	—
4	Felsper	—	—	1	12	—	—
5	Quartz	—	—	1	14	—	—
	TOTAL	244	73909	451	140252	386	145815

Source: Chief Inspector of Mines, Government of India.

Number of Mines in Ranchi in 1940, 1958 and 1965

Types of Mines	1940		1958		1965	
	No. of Mines	No. of Workers	No. of Mines	No. of Workers	No. of Mines	No. of Workers
1. Coal	5	915	11	2331	12	1669
2. Limestone	7	1532	5	806	—	—
3. China Clay	—	—	5	60	3	64
4. Fire Clay	—	—	2	284	2	194
5. Bauxite	—	—	5	620	11	1225
TOTAL	12	2447	28	4101	28	3152

Source: Chief Inspector of Mines, Government of India.

APPENDIX II : TABLE-4

APPENDIX II : TABLE-4

Number of Mines in Hazaribagh in 1940, 1958 and 1965

Types of Mines	1940		1958		1965	
	No. of Mines	No. of Workers	No. of Mines	No. of Workers	No. of Mines	No. of Workers
1. Coal	15	1428	55	43934	81	53362
2. Steatite	5	208	—	—	1	100
3. Fire Clay	—	—	3	100	4	84
4. Lime Stone	—	—	2	267	3	261
5. Mica	471	19967	450	15170	368	9785
6. Felsper	—	—	—	—	1	18
Total	491	21603	510	59471	458	63610

Source: Chief Inspector of Mines, Government of India.

APPENDIX II : TABLE-5

Number of Mines in Santal Parganas in 1940, 1958 and 1965

Types of Mines	1940		1958		1965	
	No. of Mines	No. of Workers	No. of Mines	No. of Workers	No. of Mines	N.o of Workers
1. Coal	8	302	23	671	20	951
2. Stone	6	2961	42	3558	53	6300
3. China Clay	—	—	2	438	6	747
4. Fire Clay	—	—	—	—	4	111
5. Felsper	—	—	—	—	1	12
6. Quartz	—	—	—	—	1	71
TOTAL	14	3263	67	4667	85	8192

Source: Chief Inspector of Mines, Government of India.

APPENDIX II : TABLE 6

Types of Mines	1940		1958		1965	
	No. of Mines	No. of Workers	No. of Mines	No. of Workers	No. of Mines	No. of Workers
1. Coal	1	107	3	905	3	1145
2 China Clay	—	-	1	47	—	—
3 Dolomite		--	2	755	5	203
4. Fire Clay	—	—	5	141	3	301
5 Graphite	—	—	9	337	9	317
6 Limestone	—	--	1	122	2	570
7. Iron Ore	—	—	3	229	2	82
TOTAL	1	107	24	2536	24	2618

Source Chief Inspector of Mines, Government of India.

APPENDIX III : TABLE 2

Industry-wise Distribution of Factories and Actual Employment in Chotanagpur and the Rest of Bihar in 1965

Industry	Chotanagpur		Rest of Bihar	
	No. of Factories	No. of Workers	No. of Factories	No. of Worke
1. Metallic Industry	460	96757	268	7311
2. Non-Metallic Industry	395	35999	24	1736
3. Chemical Industry	24	5966	7	576
4. Electric Supply and Electrical Machinery	127	3690	52	3696
5. Miscellaneous	2011	14291	7100	79485
TOTAL	3017	156703	7451	92804

Source: Chief Inspector of Factories, Government of Bihar.

APPENDIX III : TABLE 2

District-wise Distribution of Large and Medium Scale Industries in Chotanagpur and the Rest of Bihar in 1965

Industry	Singhbhum	Dhanbad	Ranchi	Hazaribagh	Santal Parganas	Palamau	Rest of Bihar
1. Metal Industry	28	12	10	—	1	—	17
2. Non-Metal Industry	11	30	3	27	—	2	5
3. Chemical Industry	—	3	—	2	—	—	1
4. Electrical	—	3	2	—	—	—	3
5. Textile	—	—	2	—	1	—	10
6. Fuel	—	1	1	1	—	—	—
7. Miscellaneous	1	—	2	—	4		
TOTAL	40	49	20				

APPENDIX IV : TABLE 1

Classification of Coal Mines by Size of Their Overall Employment—1965

Districts	1 to 50	51 to 150	151-250	251-400	401-800	801-1200	1201-1600	1601 and above	TOTAL
1. Dhanbad	98	96	49	42	35	16	15	26	377
2. Hazaribagh	9	14	11	10	15	7	6	9	81
3. Ranchi	6	2	2	1	1	—	—	—	12
4. Santal Parganas	15	4	1	—	—	—	—	—	20
5. Palamau	1	—	—	1	1	—	—	—	3
6. Chotanagpur	129	116	63	54	52	23	21	35	493
7. Rest of Bihar	—	—	—	—	—	—	—	—	—
8. All India	174	162	100	94	138	70	47	56	841

Source: Chief Inspector of Mines, Government of India.

APPENDIX IV : TABLE

Coal Mines Operating With and Witho

	District	With Power	Withou
1.	Dhanbad	320	
2.	Hazaribagh	74	
3.	Palamau	3	
4.	Ranchi	11	
5.	Santal Parganas	12	
6.	Chotanagpur	420	
7.	Rest of Bihar	—	
8.	All India	747	

CHAPTER IV—INDUST

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6. Government of India. *Small Scale Indust*

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3. Ranchi	6	2	2	1	1	—	—	—	12
4. Santal Parganas	15	4	1	—	—	—	—	—	20
5. Palamau	1	—	—	1	1	—	—	—	3
6. Chotanagpur	129	116	63	54	52	23	21	35	493
7. Rest of Bihar	—	—	—	—	—	—	—	—	—
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APPENDIX IV : TABLE-2

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	District	With Power	Without Power	Total
1.	Dhanbad	320	57	377
2.	Hazaribagh	74	7	81
3.	Palamau	3	—	3
4.	Ranchi	11	1	12
5	Santal Parganas	12	8	20
6.	Chotanagpur	420	73	493
7.	Rest of Bihar	—	—	—
8.	All India	747	94	841

CHAPTER IV—INDUSTRY

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CHAPTER V

THE CHURCH AND HEALTH

The State shall regard the raising of the level of nutrition and the standard f living of its people and the improvement of public health as among its rimary duties......"

The Constitution of India.[1]

The organization of health services in India is barely a century old. 'he first commissions for public health were established by the British in 864. In 1888 the Government ruled that the local bodies[2] should underake this work. Between 1919 and 1921 District Boards and Municipalities ere responsible for public health. Under the British, allopathic medicine as introduced and government hospitals were set up primarily to serve overnment officers and their families. The civil surgeon at the District eadquarters was in charge of health services.

Bihar, in contrast to the more advanced provinces of Maharashtra, 3engal and Madras, was a neglected area. District hospitals were small ind there were relatively few dispensaries. The same was true of Chotaagpur.

With Independence in 1947, India embarked on an intensive community levelopment programme. In the field of health, successive Five Year Plans tressed the need to develop rural health. Community Development Blocks vere established, each Block consisting of about one hundred (100) villages vith an approximate population of 80,000. A Primary Health Centre PHC) was provided. At Block headquarters, there was a Primary Health Centre (PHC) which had a mobile unit covering three (3) sub-centres. All other existing maternity, child welfare centres, etc. were coordinated under the primary centre. District health teams supervised field services and sanitation programmes, while district and sub-divisional hospitals provided curative facilities. Eradication and control campaigns attacked communicable diseases on the national as well as at the state level. Till fairly recently,

1. Article 47
2. These bodies were created by the Local Self-Government Act of 1885.

the control of malaria constituted the principal work of the basic health units.

In 1963 the Government of India accepted the recommendations of the Chadha Committee, which urged the strengthening of rural health services in order to take over the maintenance phases of malarial and other mass campaigns. It also reorganized the Family Planning Programme to integrate it with the basic health services.

With the increasing need of a crash programme for family planning the Mukerji Committee in 1966 recommended some delinking between the malarial maintenance activities of the Block health services and the family planning programme. The Mukerji Committee formulated fundamental principles for health services from the primary health centre to the state level; it discussed the administrative set-up of urban health services and proposed a pattern of central financial assistance to the states for the support of health services. Such then was the overall health plan for India from 1947 to 1966.

I. HEALTH CONDITIONS AND SERVICES

1. General Health Conditions in Chotanagpur

Many factors determine health conditions in Chotanagpur. Among some of the more pertinent ones are: population, vital statistics, morbidity and mortality rates, nutrition and the cultural and environmental factors which influence general health.

Population

The rapid growth of population in India is a well-known and disturbing factor. In 1967 the population was well over 500 million (over 12 million in Chotanagpur). One (1) out of every seven (7) persons in the world is an Indian[1] with a life expectancy of approximately 50 years.

In spite of the fact that more than 55,000 babies are born daily (1 every 1/½ second)[2], the rapid increase in population is chiefly the result of a declining death rate. The birth rate in India has tended to remain fairly stable, while the death rate since 1921 has shown a continuous decline. Several factors have contributed to this decline. Among them are: improved sanitation, safe drinking water supply, control of communicable diseases through the national eradication and vaccination programmes, and the local production and use of antibiotics.

The population problem in Chotanagpur is less alarming. Couples tend to have fewer children, most likely the result of socio-economic, cultural

1. Facts about Population and Family Planning in India, The Coronation Litho Works, Sivakasi, 1967, p. 1.
2. Ibid. p.3.

and psychological factors. The population of Chotanagpur is predominantly rural. Village boundaries are well-defined and isolated, a factor which has in the past, and still does, play an important role in the control of communicable diseases.

Increasing migration to urban areas also affects general health patterns. Insufficient water supply, poor sanitation, inadequate housing, overcrowding and air pollution are health problems facing the newly industrialized centres of Chotanagpur.

Other Vital Statistics

In 1966 the estimated all-India birth rate was 41 per thousand and the death rate 16 per thousand.[1] Comparative data for 1961 indicates that both the birth rate and the death rate are higher in Bihar than in India as a whole.

Infant mortality in India is still very high in comparison with advanced countries. In 1961 the registered infant mortality for India was 83/1,000 live births[2] in comparison to 20/1,000 in Australia, 22/1,000 in the U.K., 25/1,000 in the U.S.A., 29/1,000 in Japan and 52/1,000 in Ceylon[3].

In 1961 Bihar registered an infant mortality of 87/1,000 live births or slightly higher than the All-India figure. In both instances figures for the rural areas were much higher than for the urban areas. Unfortunately due to faulty reporting and registration, these figures do not indicate the true status of infant mortality. It is fairly apparent that "registered" death rates contribute only 44·3% of the "estimated" rates in the case of India and 18·8% for Bihar. This is an indication of the unreliability of vital statistics due to lack of registration alone.

Lack of reliable data is even more evident with regard to the maternal mortality rate. The "registered" maternal mortality rate for all-India in 1961 was 3·1/1,000 live and still births, and for Bihar 3·3[4] higher than the all-India figure but lower than more progressive states such as Maharashtra, Madras and Mysore. The reason for this discrepancy is that the other States have a much higher percentage of registered events. Were registration complete in Bihar, the maternal mortality rate would undoubtedly be much higher. As it is, the estimated, not registered, all-India infant and maternal mortality rates in 1967 were 109 and 10·4 per thousand, respectively.[5]

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1. Ibid.
2. Health Statistics of India, (Years 1961 and 1962), Government of India Press, Delhi-6, 1967, p. 93.
3. Annual Report of the Directorate General of Health Services, 1961, Government of India Press, Delhi-6, 1966, p. 11.
4. Op. cit. p. 345.
5. Op. cit. p. 3.

In developing health services in a country, both curative and preventive aspects must be considered. Ideally the most efficient service can be rendered when curative and preventive medicine progress side by side. In the developing countries, however, this is not always the pattern observed. Preventive measures often lag far behind while more funds and facilities are used to promote effective care.[1]

In studying the health patterns of other countries, four stages of development can be observed. The first stage includes those areas of the world where periodic epidemics of the most serious communicable diseases such as smallpox, plague and cholera are still prevalent.

The second stage includes those countries where epidemics are controlled but where the people, because of low living standards, are subject to more chronic infections, (e.g. trachoma, gastroenteritis) and parasitical diseases (e.g. malaria and helminth infections). In this stage the overall vitality of the people is diminished but, because of the eradication of epidemic diseases, the population continues to grow rapidly. This is the stage where health services, including well-organized programmes of sanitation and health education, are most necessary.

The third stage of development is rightly the domain of curative medicine. In this stage the serious communicable diseases have been eradicated, the debilitating conditions due to infestation and chronic infections are well controlled, and the general population is ready to support a system of health institutions.

The fourth stage of development is observed in some countries which have attained a high level of curative medicine, and consists in the establishment of diagnostic and therapeutic facilities designed to prevent or correct non-infectious conditions.

It is obvious that in defining the present health situation of any given country these stages will overlap. India today could perhaps be best categorized as being in stage two. However, one cannot deny the ever-present threat of some of the more serious epidemic diseases, nor the great strides which have been made in recent years in the development of curative health facilities. Presently, the greatest obstacles to progress are poverty, overpopulation, illiteracy and reluctance on the part of the people to change traditional patterns of behaviour.

Both preventive and curative aspects of the health problem in Chotanagpur were studied by this Project. The study of morbidity, health education programmes, school and vaccination programmes, provided us with a basis to evaluate preventive measures already in force and those to be

1. Bridgman, R.F., The Rural Hospital, W.H. Organization, Geneva, 1955, p. 52 ff.

adopted in the future. The survey of existing health institutions, hospitals and dispensaries (permanent and mobile), enabled us to assess the present state of curative medicine in the area.

The disease pattern that we shall present here is the result of three separate enquiries regarding the most prevalent diseases within the districts. The first enquiry was conducted through personal visits by the Chotanagpur project staff to a large number of parish centres covering the entire area of Chotanagpur. During these visits, data on general conditions were systematically gathered by means of questionnaires Information was also obtained from records of six private hospitals in four districts (Ranchi, Hazaribagh, Singhbhum and Santal parganas), and from forty private dispensaries located in all six districts. The hospitals and dispensaries indicated the most common diseases treated in their institutions. Besides, extensive use was also made of other existing documents and data.

Morbidity in Chotanagpur[1]

The ten most common diseases reported in Chotanagpur are, in order of importance:

1. Dysentery and diarrhoea
2. F. U. O.[2]
3. Tuberculosis
4. Respiratory diseases (excluding tuberculosis)
5. Typhoid
6. Skin diseases
7. Gastroenteritis
8. Cholera
9. Anemia
10. Smallpox

The five (5) most important diseases in each district are given in the table (on page 218).

Summary of Morbidity Pattern

The incidence of dysentery, diarrhoea, respiratory diseases (including tuberculosis), fevers and eye infections (including trachoma) are reported in all the districts of Chotanagpur. Three Districts, Hazaribagh, Singhbhum and Dhanbad report gastro-enteritis among the five most important diseases in the district. Typhoid and skin diseases are commonly found in all the districts, although less prevalent in Dhanbad District. Skin diseases were

1. The disease pattern for the districts of Chotanagpur has been established on a "score basis" of reports from the parish centres. The centres were asked to indicate the five most common diseases in their area in order of importance. Diseases reported as number 1 in importance were given a score of 5; number 2, a score of 4, etc. The total scores were used to construct the disease pattern.
2. F.U.O. is the abbreviation of "fever of unknown origin". In this report this category will also include cases of "suspected" malaria.

District-wise Comparison of the Five Most Important Diseases in Chotanagpur

	Ranchi District	Hazaribagh District	Palamau District	Singhbhum District	Dhanbad District	Santal Parganas
1.	Dysentery and diarrhoea	Tuberculosis	F. U. O.	F. U. O.	F. U. O.	Dysentery and diarrhoea
2.	F. U. O.	Equally prevalent: dysentery, diarrhoea and gastroenteritis	Dysentery and diarrhoea	Tuberculosis	Tuberculosis	Tuberculosis
3.	Respiratory diseases (excluding T.B.)	F. U. O.	Equally prevalent: skin diseases and scabies	Equally prevalent: typhoid and gastroenterities	Equally prevalent: respiratory diseases (excludiug T.B. and gastroenteritis)	F. U. O.
4.	Typhoid	Eye Infections	Anemia	Equally prevalent: dysentery, diarrhoea, wounds[1], abcesses	Equally prevalent: dysentery, diarrhoea and eye infections	Skin diseases
5.	Tuberculosis	Equally prevalent: anemia, wounds and abcesses	Equally prevalent: typhoid and eye infections	Equally prevalent: smallpox, leprosy, skin diseases and eye infections	Wounds and Abcesses	Cholera

1. Wounds have been included in the list of "diseases", although they are, strictly speaking, better defined as conditions.

Santal Parganas Districts. Scabies, a disease especially prevalent among the poor, is commonly recorded in Hazaribagh, Palamau and Santal Parganas. It should be stressed that the drought and famine conditions which prevail in these districts almost annually, are partly responsible for the higher incidence of skin diseases and scabies.

Anemia, the result of malnutrition and parasitical infestations, is listed among the five most important diseases in Hazaribagh and Palamau Districts (both official scarcity areas).

Filiariasis was reported from Ranchi and Santal Parganas Districts; Kala-azar in Santal Parganas.

Singhbhum District (Bistupur) and Hazaribagh (Bokaro) both industrialized areas, noted injuries among the important conditions of the district. Leprosy was found in all the districts of Chotanagpur. This problem is more acute in Hazaribagh, Dhanbad and Purulia Districts.

Mental diseases were prevalent in 13·7% of the parish centres, the highest percentage (19·1%) coming from Ranchi District The only other centre reporting in this category was Santal Parganas

Causes of Deaths in Chotanagpur

It is evident from the survey data available that communicable diseases contribute significantly to the disease pattern of Chotanagpur. However, as a result of difficulties encountered in observation, diagnosis and reporting, statistics of morbidity and mortality rates are often vague and deceptive.

The registration of causes of death is a very complicated procedure. In the rural areas the village chowkidar assumes the responsibility of diagnosing the cause of death and reporting it to the local police officer at regular intervals. These reports are forwarded to the Civil Surgeon who is responsible for district statistics. Causes of death statistics are limited to seven categories: Cholera, Smallpox, Plague, Dysentery and Diarrhoea, Fevers (including malaria), Respiratory diseases (including tuberculosis) and "All Other Causes."

The following is a presentation of the major causes of deaths in 1961 in India, Bihar, Chotanagpur and the six districts under study, in percentage of total deaths[1] (see page 221).

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1 Bihar Statistical Handbook, 1961, Directorate of Economics and Statistics, Govt. of Bihar, 1963, p. 97. All-India figures were taken from the "Annual Report of the Directorate of Health Services, 1961", Ministry of Health, Government of India Press, New Delhi-1.

Comparison of Morbidity and Mortality in Chotanagpur

There is an apparent correlation between the causes of death and the diseases noted as most prevalent in the districts of Chotanagpur.

Dysentery, diarrhoea, F.U.O., and respiratory diseases (including pulmonary tuberculosis) contribute significantly to morbidity and mortality rates within the area. All the districts under study, with the exception of Palamau, list these diseases among the five most important diseases in the district. Fevers of unknown origin are the chief cause of death in all the districts of Chotanagpur. Palamau District has the lowest mortality rate in Chotanagpur due to respiratory diseases. Smallpox occupies an important position in the morbidity and mortality pattern of Singhbhum and Hazaribagh Districts. Both districts have the highest percentage of deaths attributed to smallpox in Chotanagpur. Hazaribagh district has the highest percentage, 1.0%, Singhbhum being slightly lower at 0.7%.

Cholera is an important factor in the morbidity pattern of the Santal Parganas, while mortality due to Cholera is higher in Ranchi and Hazaribagh Districts and the same in Palamau District.

Plague is of little significance in Chotanagpur. In 1961 Palamau, registered only one death and Dhanbad reported none. The other four districts (Ranchi, Hazaribagh, Singhbhum and Santal Parganas) registered only a 0.1% mortality rate for this disease.

Although injuries as such were rarely reported as constituting an important condition in the districts, deaths due to injuries are higher in Chotanagpur than in Bihar (1.9% versus 1.4%). Dhanbad District registers the highest percentage of deaths due to injuries (2.8%). This is undoubtedly due to the impact of industrialization. Hazaribagh District follows Dhanbad having a mortality rate of 2.4%. Since Hazaribagh is an important mining area, the high percentage of deaths due to injuries is possibly attributable to mining accidents.

District-wise Evaluation of Morbidity and Mortality Patterns

Ranchi District: There is no information available in morbidity in Ranchi District to compare with the survey findings. However, the fact that dysentery and diarrhoea are important diseases in the district is upheld by its mortality statistics. Ranchi District has the highest mortality in Chotanagpur due to dysentery and diarrhoea (5.7%). Respiratory diseases (including tuberculosis), F.U.O. (including malaria) and smallpox also show relatively high mortality rates. According to medical reports, filariasis is becoming more significant. Mental disease, nervous disorders and peptic ulcers are also noted more frequently in this district.

Hazaribagh District: Cholera appears to be more prevalent in this district than indicated by the survey results. Tuberculosis is reported as

Deaths in India, Bihar and Chotanagpur, Inncluding Santal Parganas, by Different Causes, and in Percentage of Total Number of Deaths (1961)*

Diseases	All-India	Bihar	Chota-nagpur	Ranchi-District	Hazari-bagh Dist.	Palamau District	Singh-bhum Dist	Dhanbad District	Santal Parganas District
Fever (F. U. O.)	x	69.0	67.8	65.3	73.5	70.9	64.2	49.7	72.9
All other causes	x	20.9	22.6	23.4	16.0	22 9	25.2	40.0	16.9
Cholera	0.72	3.9	1.1	1 4	1.6	1.1	0.1	0.6	1.1
Respiratory diseases (including tuberculosis)	10.38	2.3	2.9	1.6	2.9	0.8	4.9	2.6	5.2
Dysentery and Diarrhoea	5.88	2.2	3.3	5.7	2.5	2.7	3.0	4.2	2.0
Injuries	x	1.4	1.9	1.9	2.4	1.5	1 8	2.8	1.5
Smallpox	1.02	0 3	0.5	0.6	1.0	0 1	0.7	0.1	0.3
Plague	x	less than 0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1

1. Bihar Statistical Handbook, 1961, Directorate of Economics and Statistics, Govt of Bihar, 1963, p 97. "All-India" figures were taken from the "Annual Report of the Directorate of Health Services, 1961", Ministry of Health, Govt, of India Press, New Delhi-1.

the most important disease in the district and many cases are found among the mica and coal miners.

Cases of fever are prevalent in the rural areas. The high incidence of eye infections (including trachoma) is atrributed to the dusty, dry climate of Hazaribagh. Leprosy and Yaws are also found in that district.

Palamau District: Palamau District is the only district in which respiratory diseases are not listed as being one of the five most important diseases. Undoubtedly there are cases of respiratory diseases (including tuberculosis), however, other diseases are more prevalent. The climate of Palamau, warm and dry most of the year, may be a factor explaining the low incidence of respiratory diseases.

Cholera and smallpox are endemic in the district. Fever is the most frequent cause of death. Yaws is also found. The prevalence of skin diseases mentioned frequently in the survey reports is attributed to the lack of water for bathing purposes in this drought-affected area. The increased incidence of eye infection (including trachoma) could also be due to the dust and dirt inevitable in a dry region.

Singhbhum District: This district has the lowest number of deaths due to cholera (0.1 %) in Chotanagpur, and is the only district where smallpox has a higher mortality rate than cholera.

Tuberculosis seems to be increasing, especially in the urban areas. It is difficult to ascertain the incidence in the rural areas because people are still reluctant to go to a hospital for diagnosis and treatment. Mortality due to respiratory diseases (including tuberculosis) is the second highest in Chotanagpur.

Venereal disease is becoming increasingly apparent, and is on the increase especially in the industrial areas.

Leprosy too, is reported as one of the five most important diseases in this district.

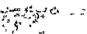
Dhanbad District: Dhanbad has the lowest percentage of deaths due to fever (49.7%) in Chotanagpur, and the highest percentage of deaths (2.8%) due to injuries. A moderately high incidence of respiratory diseases (including tuberculosis) is attributed to air pollution, especially in the collieries. Venereal disease is also more common in these areas.

The incidence of leprosy is high in both urban and rural areas.

Smallpox, cholera and typhoid (endemic in this district) along with malnutrition and parasitical infections (especially hookworm) add to the morbidity pattern. Alcoholism is a particular problem in Dhanbad.









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Dhanbad District: Dhanbad has the lowest percentage of deaths due to fever (49.7 %) in Chotanagpur, and the highest percentage of deaths (2.8 %) due to injuries. A moderately high incidence of respiratory diseases (including tuberculosis) is attributed to air pollution, especial[illegible] the collieries. Venereal disease is also more common in these area[illegible]

The incidence of leprosy is high in both urban and rural a[illegible]

Smallpox, cholera and typhoid (endemic in this district) malnutrition and parasitical infections (especially hookworm) morbidity pattern. Alcoholism is a particular problem in Dh[illegible]

Santal Parganas: Tuberculosis is repeatedly mentioned in morbidity reports from this district. A high incidence of this disease is confirmed by the fact that Santal Parganas shows the highest mortality rate due to respiratory diseases (5.2%) in Chotanagpur.

Dysentery and diarrhoea account for only 2.0% of the deaths in this district, the lowest percentage in Chotanagpur.

Santal Parganas is the only district which reports cholera among its five most important diseases and mortality due to cholera is also moderately high (1.1%).

The incidence of skin diseases and leprosy in this district is high. Filariasis is also reported.

Nutritional Disorders

Nutritional disorders and malnutrition among the people of Chotanagpur constitute a permanent health problem. The geographic and climatic conditions of this region are such that drought resulting in crop failure is a constant threat. Due to recent drought conditions, two entire districts of Chotanagpur, Palamau and Hazaribagh, have been declared famine areas. Parts of Ranchi District are also suffering from famine as are pocket areas in almost all the districts. Famine relief operations in Palamau and Hazaribagh have undertaken feeding programmes throughout the area, thus reducing cases of marasmus. The actual number of starvation deaths is not known.

A high incidence of nutritional diseases was reported in the survey. Some of the nutritional disorders reported are:

A. Calorie-protein malnutrition
   1. Marasmus
   2. Hypoproteinaemia
   3. Kwashiorkor

B. Vitamin-mineral salt deficiency
   1. Anemia
   2. Avitaminosis (especially vitamins A & B)
   3. Rickets and osteomalacia
   4. Goitre
   5. Beri-beri

Anemia and avitaminosis are the most prevalent nutritional disorders followed by marasmus, hypoproteinaemia and goitre. Goitre was commonly reported from Ranchi, Hazaribagh and Singhbhum Districts. Rickets and osteomalacia are less often observed. Kwashiorkor is present but does not seem to constitute a major nutritional disease in Chotanagpur.

2. Factors Influencing General Health in Chotanagpur

The main factors influencing general health conditions in Chotanagpur are: water supply, housing, sanitary facilities, infestation, personal hygiene and diet. Each of these factors will be discussed and evaluated in the light of the survey findings.

Water Supply

In Chotanagpur the chief sources of drinking water are wells, of which the majority are "packka" (well-constructed) usually of brick and cement. In other areas "kachha" (mud) wells also contribute to the water supply, the majority of "kachha" wells being found in Ranchi District. Piped water is supplied to some urban areas, though there is no piped water supply in the rural areas. Rivers, streams and springs still continue to be important sources of water in most of the districts.

Although cholera and typhoid are endemic throughout the area, disinfection of wells throughout Chotanagpur is an encouraging indication of continued effort on the part of local sanitary inspectors to control epidemics. Unfortunately basic notions of how to maintain a pure water supply are lacking at village levels.[1]

Housing

The majority of the people in Chotanagpur live in houses made of mud walls and a tiled roof. Wood or bamboo beams are used to support the roof. Each house is surrounded by a small, cow-dunged courtryard, and a mud wall separates family plots. Several families may occupy one compound. Houses are generally clustered together in villages and a few narrow lanes run through the village. These lanes serve as passage ways through which open drains flow. There are no closed sewage systems in the rural areas, and waste is collected in open gutters.

Most of the village houses have two(2) or three(3) rooms used for cooking, sleeping, storage and animal quarters. There are usually no windows in the houses but a few have small ventilators near the roof. Fear of thieves is the main reason why windows are not provided.

There are few household furnishings. The people sleep and sit on the floor or on mats. A tiny, flat stool about three (3) inches high is provided for guests. Brass pots and pans are used for cooking and clay pots for storing water. Food is eaten with the fingers from tin plates or leaves.

The more well-to-do people, especially in the urban areas can afford bigger and better houses, usually of brick or cement. Where iron and steel are available, such as in Jamshedpur, they are used in construction.

1. P.C. Roy Chaudhury, District Gazetteer, Santal Parganas. Secretariat Press, Patna, Bihar, 1965 p. 634.

On the whole, housing conditions are unsatisfactory, and factors such overcrowding, poor ventilation and unhygienic practices, contribute the high incidence of infectious diseases in the area.

nitary Facilities

Sanitary facilities in Chotanagpur are poor. Although provided by ›vernment in some areas, latrines are rarely used. The majority of people ll prefer to use the fields for toilet purposes. In some urban centres such Ranchi, Dhanbad and Jamshedpur latrines are used but then, only by : upper, more-educated classes, not by the poor.

Underground sewage systems are also rare. Ranchi town area, the ›isional headquarters, has open drains. There are no underground ›tems in the rural areas.

The disposal of refuse is another problem. In most cases refuse is ›rely thrown away at random. There is no collection of waste, except a few cities where sweepers are hired specifically for this purpose.

Although conditions are generally better in the Christian villages, even ›n sanitary facilities are far from satisfactory.

The provision and use of latrines at the village level is an urgent necessity, pecially if parasitical infections, which drain the population of necessary ›ality, are to be controlled. In this regard one of the biggest defects of : present latrine system has been the lack of an adequate water supply. one is to establish priorities, therefore, a water supply must be assured fore latrine systems can be expected to function effectively and efficiently.

In order to achieve success in community programmes of sanitation, o basic factors must be stressed: firstly, a thorough understanding and spect of local social and religious customs on the part of health educators, ıd secondly, the encouragement of the general population to take an tive part in the planning and support of such programmes.

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Poor hygienic habits along with improper sanitary facilities tend to make e control of insects and rodents an endless task. Although the Govern-›nt has undertaken extensive campaigns against malaria, filaria, etc, the ›in problem, the control and eradication of breeding places, still persists.

As matters stand at present, Chotanagpur is infested with mosquitoes ıd flies. Precautionary measures, however, are being taken to the extent at most areas are being D.D.T, d. periodically. Since houses are generally arked with the date of D.D.T.'ing it is relatively easy to substantiate the tent of present efforts being made in this regard. In some areas, however,

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In order to achieve success in community programmes of sanitation, two basic factors must be stressed: firstly, a thorough understanding and respect of local social and religious customs on the part of health educators, and secondly, the encouragement of the general population to take an active part in the planning and support of such programmes.

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Poor hygienic habits along with improper sanitary facilities tend to make the control of insects and rodents an endless task. Although the Government has undertaken extensive campaigns against malaria, filaria, etc, the main problem, the control and eradication of breeding places, still persists.

As matters stand at present, Chotanagpur is infested with mosquitoes and flies. Precautionary measures, however, are being taken to the extent that most areas are being D.D.T, d. periodically. Since houses are generally marked with the date of D.D.T.'ing it is relatively easy to substantiate the extent of present efforts being made in this regard. In some areas, however,

this is difficult as houses are marked but not D.D.T'd. Villagers have attributed the death of domestic animals to D.D.T'ing and beg officials not to spray. The national malaria eradication programme is still in the attack and consolidation phases in most areas of Chotanagpur. The high incidence of fever in all the districts is still attributed to "suspected malaria", though diagnostic facilities being poor, it is difficult to determine the actual incidence of this disease.

Personal Hygiene

Factors affecting personal cleanliness are: poverty, climate, sense of civic responsibility and cultural patterns. In Chotanagpur poverty can be considered the chief obstacle, a bar of soap to the poor being a luxury. Although the climate is generally mild, there are periods of extreme heat and cold. In many areas water is scarce in the hot season. During the crisis caused by the famine in 1967, there was not enough water for bathing purposes, and skin diseases were rampant, especially in Hazaribagh and Palamau Districts.

Few of the people have been introduced to a sense of civic responsibility, and habits of personal and community hygiene are just beginning to be included in school curricula. So far there has been little health education at the village level.

Cultural patterns, which have for centuries determined the manner of life and personal behaviour of the people, are a considerable barrier to the introduction of modern concepts of medicine.

Diet

The majority of people in Chotanagpur eat two meals daily. Economic factors influence dietary habits: As one centre in Santal Parganas notes, the middle class eat two meals daily, whereas the very poor can only afford one.

The diet of the common man in Chotanagpur consists in the daily consumption of rice, wheat, dhal, ragi, leafy and/or other vegetables, fruit (when it is available), small quantities of fats or oils, sugar or jaggery. Fish is occasionally consumed, but milk, milk products, meat and eggs are rarely if ever consumed. In the monsoon season, poor village people are often obliged to live on roots, bulbs, and wild jungle fruits. Rice beer (handia) is regularly consumed, especially on festive occasions and bazaar days. The diet of the average man in Chotanagpur as well as in India is high in carbohydrates and low in protein.

Only the richer classes can afford a varied and balanced diet. The consumption of milk, eggs, meat and ghee are almost entirely limited to the more well-to-do sections of the people.

Although a monotonous diet, such as that of the majority of people in

Chotanagpur, does not necessarily mean a nutritionally inadequate d yet on the whole, it is estimated that "at least one Indian in every fou *suffering from varying degrees of undernutrition.*[1] It is also estimated t approximately 60% of the households in India are malnourished; pro malnutrition affecting one third of the Indian population?"[2]

In India the daily calorie requirement has been set at 2,400—3,000 adult men and 2,000—2,700 for adult women.[3] The average daily cal intake for the adult individual in Bihar is 2,400 calories meeting the minim recommended requirement with regard to quantity, yet inadequate from point of view of quality. Most of the calories consumed by Indians derived from carbohydrate foods (cereals, starchy roots, sugar). I calories are derived from protective foods such as milk, meat, fish, e leafy vegetables and fruits.[4] It has been estimated that approxima 77% of the total calories intake in the underdeveloped countries is in form of carbohydrates, whereas in the richer nations this percentage is c 57%.[5]

The average daily consumption of foodstuffs for India and Biha *given in the following table:*

Average Daily *Food* Consumption Pattern for India and *Bihar.*[1]

Grams per adult individu

Foodstuff	*Recommended consumption*	*Actual Consump*	
		All India	*Bihc*
Rice	x[2]	x	379
Wheat	x	x	36
Millets	x	x	60
Other cereals	x	x	28
Total cereals	400	470	504
Pulses	58	70	77
Milk and milk products	284	80	16
Meat, fish & eggs	125	15	10
Leafy vegetables	114	20	36
Other vegetables	170	90	92
Fruits	85	5	12
Oils	57	15	11
Sugar and Jaggery	57	20	4

1. Diet Atlas of India, Nutrition Research Laboratories, Hyderab Cambridge Printing Works, Delhi-6, 1964, p. 72.
2. Data not available.

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1. P.V. Sukhatme, Problems of World Hunger, Seminar on Food and Health, Avai from: Indian Social Institute, South Extension II, D-25-D, New Delhi-16. p. 2
2. Op. cit. p. 30.
3. Diet atlas of India, Nutrition Research Laboratories, Hyderabad, Cambridge Pri Works, Delhi-6, 1964, p. 34-35.
4. Same as above (3).
5. Op. cit. p. 23.

It is apparent that the consumption of protective foods is low, both for India and Bihar. The survey data for the Chotanagpur area confirms this.

3. Medical Services

Medical Facilities:

The modern concept of medicine envisages the provision of several types of medical services supplied either by Government or voluntary agencies. Basic services which are, in the case of India, provided by a wide network of Government-planned facilities include: hospitals, dispensaries, primary health centres (especially designed for the rural areas), maternity and child welfare centres, a wide range of public health facilities including safe water supply, sanitation, vaccination and eradication programmes, school health services and health education programmes. In 1966 the major medical services in India were 14,600 hospitals and dispensaries, 10,000 maternity and child welfare centres and 5,223 primary health centres.[1] The total number of hospital beds was 240,100.[2]

The contribution of private agencies consists chiefly in the provision of curative services such as hospitals and dispensaries. In response to the needs of the rural areas, public health programmes have been initiated. Medical, nursing and paramedical education has also been an outstanding contribution to voluntary agencies.

In order to construct an overall picture of basic health facilities, the Chotanagpur Project undertook a census by a mailed questionnaire to almost all hospitals and dispensaries located on the plateau. The total number of health institutions included in the census was 406. Approximately 80% of these institutions responded. Hospitals and dispensaries were divided into four main groups: those maintained by Government (including Railway and other Government-supported hospitals), those managed by the Roman Catholic Church, by other Christian Churches and by other private agencies (Tatas, Mining and Cement Factory, Health Services, etc.). Each of these groups were sub-divided into two categories: those providing "general" and those providing "specialized" medical facilities. Since Government records used in the census listed military and police hospitals under "special" hospitals, this procedure was retained. In most cases, however, the term "special" refers to health institutions which provide medical care for only one medical discipline, such as tuberculosis, leprosy, etc. Information referring to the daily average in-patients for 1966 has been given as daily occupancy in some cases.

The tables derived from the Chotanagpur Project's survey of hospitals and dispensaries are included in the Appendix.

1. "Our India", Ministry of Information and Broadcasting, Government of India, Indraprastha Press, New Delhi, 1966, p. 5.
2. India's Five Year Plans—IV, Statesman, November 23, 1966.

Hospitals

Out of the 286 hospitals and dispensaries in Chotanagpur that indicated their year of establishment, 181 or 63.3% were founded after Independence. The total number of hospitals (general and special) and their managing agency are given in the following table. Hospitals listed as such on Government lists, or who have called themselves hospitals on the census questionnaire, have been included under the general category of hospitals, even though in a few instances (2) these institutions have no beds!

Total Number of Hospitals (General and Special) in Chotanagpur and Their Managing Agency.

Government	*Catholic*	*Other Christian*	*Other Private*	*Total*
69	4	11	38	122

Government manages 56.9% of the hospitals in Chotanagpur. The majority of hospitals operated by private agencies other than Catholic or Christian, are located in Dhanbad and Singhbhum Disticts and are company hospitals. These provide medical facilities to large numbers of people working in heavily industrialized areas.

Hospital Beds

The total number of hospital beds in both general and special hospitals in Chotanagpur is given below along with their managing agency.

Total Number of Hospital Beds (General and Special) in Chotanagpur and Their Managing Agency.

Government	*Catholic*	*Other Christian*	*Other Private*	*Total*
6,220	275	1,019	1,862	9,376

Two-thirds or 66.3% of the hospital beds in Chotanagpur are maintained by Government. Other private agencies manage 19.9% and Christian agencies 10.9%. Only 2.9% of the hospital beds in Chotanagpur are managed by Catholic Agencies.

Hospital beds per 10,000 population for India, Bihar and Chotanagpur are given in the following table:

Hospital Beds/10,000 Inhabitants in India,
Bihar and Chotanagpur (1966).

	Hospital Beds/10,000[1]
India	5.5[2]
Bihar	2.2[3]
Chotanagpur	8.1[4]
Ranchi	21.7
Hazaribagh	4.2
Palamau	2.0
Singhbhum	7.7
Dhanbad	8.8
Santal Parganas	3.3

1. In comparison there are 110 hospital beds/10,000 in Canada.
2. The Economic Times, November 25, 1966.
3. Personal correspondence, Directorate of Health Services, Patna, Bihar
4. Data collected from Chotanagpur Project Survey, 1966.

Dispensaries

The total number of general and special dispensaries in Chotanagpur is 284. The total number of dispensary beds is 714. State dispensaries account for the majority of Government institutions although those operated by the District Board are also included in this category. According to the present "Block" system there should be two types of units functioning in each Block; one a "static" unit, the Primary Health Centre, and the other a "mobile" unit which attends to 3 sub-centres. It is difficult to ascertain the exact number of Government mobile units actually functioning. There are two (2) mobile dispensaries managed by Catholic agencies in Chotanagpur, these have been classified under "special" dispensaries.

The total number of dispensaries, bed capacity and managing agency are as follows:

Total Number, Bed Capacity and Managing
Agency of Dispensaries in Chotanagpur.

Government		*Catholic*		*Other Christian*		*Other Private*		*Total*	
Total Number	*Beds*	*Total No.*	*Beds*	*Total No.*	*Beds*	*Total No.*	*Beds*	*Total No.*	*Beds*
217	546	41	60	6	18	20	90	284	714

4. District-wise Distribution of Hospitals and Dispensaries

Ranchi District:

Ranchi district has twenty-six (26) hospitals, 16 of which are general and 10 specialized.

The specialised hospitals are:

3 Police Hospitals
2 T.B. Sanatoria
2 Mental Hospitals
1 Military Hospital
1 Leprosarium
1 Infectious Disease Hospital

The Government maintains eighteen (18) of the twenty-six (26) hospitals in the district.

Although Ranchi District has the highest number of hospital beds (4,650) in Chotanagpur (almost 4 times higher than any other district) both the daily average of admissions and out-patients is comparatively low.

Ranchi District has 64 dispensaries, the highest number in Chotanagpur. It also has the highest number of dispensary beds (204), Government manages over seventy-five (76.4%) per cent of the dispensaries in Chotanagpur and fifty per cent (50%) in Ranchi District. Of the forty-one (41) Catholic dispensaries in Chotanagpur, 25 or 61% are located in Ranchi District. Three (3) of the six (6) other Christian dispensaries, in Chotanagpur, are also in Ranchi District.

Hazaribagh District:

Hazaribagh District has twenty seven (27) hospitals, more than any other district in Chotanagpur. The Government maintains nineteen (19) of these which include three (3) military hospitals.

There are fifty-six (56) dispensaries in the district, fifty-three (53) managed by Government and three (3) by Catholic agencies.

There is one rehabilitation centre in Chotanagpur located in Bhurkunda.

Palamau District :

Palamau has only 8 hospitals. The only special hospital is the Police Hospital situated in Daltonganj, the district headquarters.

Five (5) out of the eight (8) hospitals are managed by Government, two (2) by private agencies and one (1) by a Christian agency.

Palamau District has the fewest hospitals and hospital beds, the lowest daily average of both in-patients and out-patients in Chotanagpur.

There are twenty-five (25) dispensaries in Palamau; twenty-three (23) are managed by Government, and two (2) by Catholic agencies.

Singhbhum District:

Singhbhum District has twenty-five (25) hospitals, twenty (20) of which are general and five (5) are special. The specialised hospitals include:

2 Police Hospitals
1 T.B. Sanatorium
1 Infectious Disease Hospital
1 Eye Hospital

Out of the twenty-five (25) hospitals, eight (8) are managed by Government, fifteen (15) by private agencies and one (1) each by Catholic and Christian agencies.

Singhbhum District has the highest daily average of hospital in-patients and out-patients in Chotanagpur. The total number of daily out-patients (7,489) is almost double that of other districts.

Singhbhum has fifty-eight (58) dispensaries, the second highest number of them in Chotanagpur. The total daily average of out-patients is 1,802. the highest average for dispensaries in Chotanagpur.

Thirty-eight (38) of the fifty-eight (58) dispensaries in Singhbhum District are managed by Government. Sixteen (16) dispensaries are managed by private agencies, mostly companies, and are located in the Jamshedpur area. There are four (4) Catholic dispensaries in the district.

Dhanbad District:

Dhanbad District has nineteen (19) hospitals, six (6) of which are specialised as follows:

2 Police Hospitals
1 Leprosarium
1 Infectious Disease Hospital
1 Eye Hospital
1 Maternity Hospital

Of the nineteen (19) hospitals, six (6) are operated by Government. The rest are operated by private agencies. There are no Catholic or Christian hospitals in Dhanbad District.

Dhanbad hospitals have the second highest number of daily out-patients in Chotanagpur.

This district has twenty-four (24) dispensaries, the lowest number in Chotanagpur. Twenty-two (22) of them are operated by Government. The dispensaries have the fewest beds (48), the lowest daily average of in-patients (3) and out-patients (842) in Chotanagpur.

Santal Parganas:

Santal Parganas District has seventeen (17) hospitals, four (4) of which are specialized. These consist of:

3 Leprosariums

1 Police Hospital

Out of the seventeen (17) hospitals, thirteen (13) are managed by Government and the rest (4) by Christian agencies

Santal Parganas has fifty-seven (57) dispensaries with the highest daily average of in-patients in Chotanagpur. Forty-seven (47) of the dispensaries are run by Government, six (6) by Catholic agencies, three (3) by other Christian agencies and one (1) by a private agency.

Evaluation of Medical Services

Although the Five Year Plans have attempted to provide preventive and curative medical care for the general population, it has proved an impossible task. Ideally speaking, the Block system was supposed to care for about 80,000 people. As the result of combining curative, preventive and family planning measures, and straining existing facilities and staff, the whole system has proved to be ineffectual, at least in Chotanagpur.

Again, while the approach should have been from the bottom up, that is the development of the Primary Health Centre to care for the immediate health needs of the general population, large sums of money were spent in the financing and provision of curative facilities in district and sub-divisional headquarters, where only the few, who could afford transportation, could take advantage of them.

On paper the Block system appears to provide good medical service; in reality, it has been a dismal failure. Why? Basically because neither the funds nor the trained personnel have really been available to make it work.

Moreover, it is only where the Block doctor is, what is so often referred to in the district gazetteers as a doctor with a "human touch and the zeal

of a missionary,"[1] that is there any hope that he will have the qualities required to give himself fully to his task. A good Block doctor can make a big difference in the type of service rendered at the local level. The problem is: there are very few devoted physicians to serve the poor...too many who will not examine a patient because of his poverty.

What is often lacking, of course, is a sense of dedicated service which is, unfortunately, not instilled in the hearts of young doctors in India. A sense of responsibility too, appears, at times, to be missing in many of them.

Even where one may presume the presence of a devoted staff, the lack of finance jeopardizes adequate treatment of patients. There are few good medicines available in the Block dispensaries. Drugs effective against the more severe types of diseases, like tuberculosis and leprosy, which are prevalent in the area, are usually not available, and when they are, they are too costly for the average patient. Again, in theory, medicines are supposed to be free. Corruption, involving the selling of medicines allocated to Block dispensaries for free distribution to the poor, in deserving cases, is often the reason why medicines are not available. It is no wonder, therefore, that the attendance at Block clinics is so low. For this reason, mainly, many resort to simple home remedies and, if they are fortunate enough, take their sick to urban centres where better services are provided. The very poor die in the villages, and this was very evident in the recent famine crisis in 1967. Those who were unable to get to the feeding centres simply died. Because of this, the actual number of deaths, due to the famine, can never be fully calculated.

The picture presented by the Government hospitals is not much better. The following is an excerpt giving a fairly accurate discription of conditions in Government hospitals.

"JAMSHEDPUR—Believe it or not, patients in the State Sadar Hospital at Sakchi here get a paltry 87 paise each day for their food, medicine and sundry expenses. What is worse, there is not enough medicine in the Government Hospital and no X-Ray instrument and 50 per cent of the "beds" have pillows and mattresses. Strangely enough, medicines even at cheaper rates are available "around the corner" just outside the hospital compound.

Even for a pot of water for the toilet, a patient is forced to pay clandestinely 25 paise to "water-dealers" standing by, since hospital taps remain dry most of the time."[2]

At the time of our survey, there were only two (2) qualified medical persons on the staff of the forty-six (46) bed Infectious Disease Hospital,

1. P.C. Roy Chaudhury, Bihar District Gazetteer, Palamau, Secretariat Press, Patna, Bihar, 1961, p. 467.
2. The New Republic, April 26, 1967.

Ranchi. They are: a full-time doctor and a trained midwife. Most likely auxiliary personnel are hired to help out; nevertheless, the quality of medical care suffers under such conditions.

5. Maternity and Child Welfare

In the developing countries, maternity and child welfare play an important role in overall health services. In India both maternity and infant mortality rates continue to be high. There is an urgent need for maternity and child health services throughout the country, especially in the rural areas. In order to provide better care to mothers and infants, several courses for trained nurses, auxiliary-nurse-midwives, trained dais, lady health visitors and public health nurses have been instituted by Government and other private agencies.

In Chotanagpur there are six (6) Nurses' Training Schools, five (5) Auxiliary-Nurse-Midwifery Schools, and 1 Midwifery Training School.

Ninety-three (93%) per cent of the parish centres studied by the Chotanagpur Project have stated that babies are usually delivered in the village and not in a hospital. Only four urban centres, two in Dhanbad and two in Singhbhum, indicated that more babies were born in hospitals. When babies are delivered, in the village, the mothers are usually assisted by untrained midwives. Only one parish noted that the Block Nurse was called for delivery cases. Five of the six parish centres where trained dais usually performed delivery cases were in urban centres.

Since the great majority of babies born in Chotanagpur are delivered in the village by untrained dais, the instruments used to cut the baby's cord is of special interest. It may be assumed that an instrument used for this purpose, in the hands of an untrained person, could be a possible source of infection. Several instruments were mentioned: knives, razor blades, arrowheads, sea shells, stones, tiles, scissors and sickles. Knives and blades were used in approximately 70% of the parish centres. Arrowheads were used in 6% of the parishes (all in Ranchi District). Seashells were commonly used in Santal Parganas.

Concerning the number of maternity and child health institutions in the various parishes, 57% of the parishes reported that there were no maternity or child welfare facilities in their parish area. Thirty-five (35%) per cent of the parishes had one (1) centre and 2.5% of the parishes had two (2) centres.

Evaluation of Maternity and Child Welfare Centres

In 1965 there were a total of 92 Government and private maternal and child welfare centres in Bihar; thirty-seven (37) were located in Chotanagpur.[1]

1. Private communication with the Public Health Institute, Patna, Bihar, 1965.

	Government	Private	Total
Ranchi	4	1	5
Hazaribagh	4	—	4
Palamau	2	1	3
Singhbhum	3	2	5
Dhanbad	1	12	13
Santal Parganas	6	1	7
Total	20	17	37

In rural areas, however, one of the functions of the Primary Health Centre is maternity and child health services in the form of domiciliary visits. In 1966 there were 587 Primary Health Centres in the State of Bihar.[1]

In 1965 there were 177 Primary Health Centres located in Chotanagpur.[2]

District-wise

Ranchi	42
Hazaribagh	42
Palamau	15
Singhbhum	37
Dhanbad	10
Santal Parganas	31
Total	177

It is difficult to know whether the reason why most infants are still delivered in the village is due to custom, or to the fact that maternity facilities are not readily available. Even in areas where there are Government maternity facilities, they are apparently not fully utilized.

With the high percentage of babies being delivered in the village by untrained personnel, the incidence of tetanus, and other infections associated with child-birth, is bound to be high. Obviously there is need, therefore, of strengthening maternity and child health services in the country, and rural areas will undoubtedly need special attention. This is particularly true of Chotanagpur where villages are well-separated and people are reluctant to take advantage of modern medical facilities. Because of the general poverty of the people, and inadequate means of transportation, the distance to health institutions poses an additional problem.

1. Ibid.
2. There are 193 Community Blocks in Chotanagpur: Dhanbad 10, Singhbhum 32, Palamau 25, Hazaribagh 42, Ranchi 43, and Santal Parganas 41. Taken from the Directory of Blocks, Bihar, Secretariat Press, Patna, Bihar, 1965, pp. 110-161.

6. *Public Health Services in Chotanagpur*

Besides public health services such as safe water supply, sanitation, etc, vaccination programmes, school health services and health education programmes have also been undertaken by Government and private agencies in Chotanagpur.

Mass vaccination campaigns and periodic vaccination programmes for school children are an indication of the efforts being made to assure community health. In 1966 in India and Bihar the percentage of population vaccinated against smallpox was estimated at eighty (80%) per cent.[1]

According to the Chotanagpur Project Survey, Government vaccination campaigns are conducted periodically throughout Chotanagpur. Periodic vaccination was not done in eleven per cent (11%) of the centres reporting from Ranchi, Palamau, Singhbhum and Santal Parganas Districts. It is interesting to note here that because of the upsurge of propaganda for family planning, rumours have spread in some areas that vaccination causes sterility. The result has been that entire villages have refused vaccination.

School children were vaccinated in ninety per cent (90%) of the parish centres in Chotanagpur. The few parishes where school children were not protected were in Ranchi and Santal Parganas Districts.

Periodic medical examinations for school children were done in only thirty-four per cent (34%) of the parish centres in Chotanagpur. Parishes in Santal Parganas District showed the highest percentage of centres where school children were not examined.

In studying the existence of health education programmes at the village level, only fourteen per cent (14%) of the parish centres in Chotanagpur had access to such programmes. The majority (over 70%) of these education programmes were in Ranchi District. Parishes in Hazaribagh, Singhbhum and Dhanbad Districts had no health education programmes at all.

Medical Staff

In September 1967, there were 108,000 registered doctors[2] in India serving a population of approximately 500 million people. The total number of dentists in India in 1966 was 5,673[3]. At the beginning of 1966, there were 51,146 qualified (Grade A and B) nurses, 11,412 auxiliary-nurse-midwives, 2,832 health visitors, and 57,567 trained midwives in the country.[4]

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1. [illegible]
2. [illegible]
3. [illegible] '66,
4. [illegible]

Comparison of Professional Medical Staff in India, Bihar and Chotanagpur in 1966.

	Total No. of Reg. Doctors	*Total No. of Reg. Dentists*			*Total No. of Reg. Nurses Grades A & B*	*Total No. of Reg. A.N. Ms.*	*Total No. of Reg. Health Visitors*	*Total No. of Reg. Trained Dais*
		Grade A	*Grade B*	*Total*				
India	108,000 (1967)	x	x	5,673	51,746 (1965)	11,412 (1965)	2,832 (1965)	57,567 (1965)
Bihar	8,021	62 (1967)	77 (1967)	139 (1967)	2,240	248	x	x
Chotanagpur	803	x	x	22	778	136	58	248
1. Ranchi	262	x	x	5	258	19	12	56
2. Hazaribagh	132	x	x	3	82	37	18	63
3. Palamau	25	x	x	0	16	7	3	13
4. Singhbhum	208	x	x	8	187	22	9	51
5. Dhanbad	112	x	x	4	213	19	8	33
6. Santal Parganas	64	x	x	2	22	32	8	32

x = Data not available

A comparison of the total professional staff in India, Bihar and Chotanagpur is given in the following tables. The data for Chotanagpur was taken from our survey of hospitals and dispensaries and the figures indicate the professional staff working in these institutions only. All figures, unless marked otherwise, are for 1966. The number of professionals in India and Bihar indicates all those who, at one time or another, have been registered; but may not reflect the actual number working, at present, in the area.

Number of Professionals in India, Bihar and Chotanagpur (1966)

	Doctors/ 10,000	*Dentists/ million*[1]	*Nurses/ 10,000*	*Auxiliary-Nurse-Mid-wives/10,000*
India	2.5	13.0	1.2	.26
Bihar	1.7	3.0	.48	.053
Chotanagpur[2]	.69	1.9	.67	.12
Ranchi	1.2	2.3	1.2	.089
Hazaribagh	.55	1.3	.34	.15
Palamau	.21	—	.13	.059
Singhbhum	1.0	3.9	.91	.11
Dhanbad	.97	3.5	1.8	.16
Santal Parganas	.24	.75	.082	.12

1. Due to the small numbers involved, this indicator has been stated in millions rather than in 10,000's.

2. Data for Chotanagpur include only doctors, dentists and nurses working in hospitals and dispensaries.

Medical Staff

Doctors:

It is evident that there is a serious lack of medically trained personnel at all levels. In 1967 there were 2.5 doctors per 10,000 people in India against approximately 14 per 10,000 in New Zealand (1966), 13 per 10,000 in the U.S.A. (1966) and 11 per 10,000 in the U.K. (1966).[1]

Bihar State has 1.7 doctors per 10,000 people and Chotanagpur less than 1 per 10,000 (0.69). Ranchi district has the highest number of doctors working in hospitals and dispensaries (1.2 per 10,000) followed by Singhbhum and Dhanbad Districts with 1.0 per 10,000 and .97 per 10,000 respectively. Hazaribagh District has one-half a doctor for 10,000 inhabitants! The greatest lack of doctors is in Palamau and Santal Parganas Districts.

1. Indian Journal of Public Health, "Presidential Address", Dr. S.C. Seal, Lalchand Roy and Co., Private Ltd. Press, Calcutta-12. p. 17.

Palamau has approximately 1 doctor per 47,600 inhabitants, and Santal Parganas 1 doctor per 41,650.

Dentists:

Of all health personnel shortages in India that of dentists is the most acute.

The largest number of dentists working in hospitals and dispensaries in Chotanagpur is to be found in Singhbhum (3.9 per 1,000,000) and Dhanbad (3.5 per 1,000,000) Districts. Palamau District has no dentists working in health institutions and Santal Parganas has less than one (1 per 1,000,000.)

Nurses:

There is approximately 1 qualified nurse per 10,000 people in India, and 1 nurse per 20,000 in Bihar. Chotanagpur is slightly better of than Bihar as a whole (0.67 per 10,000 versus 0.48 per 10,000). Dhanbad had the largest number of nurses, 1.8 per 10,000 (and higher than the all-India figure) followed by Ranchi District with 1.2 per 10,000 (the same as the all-India figure). Santal Parganas has the lowest number of nurses in Chotanagpur (0.082 per 10,000).

Auxiliary Nurse-Midwives

There is approximately 1 auxiliary nurse-midwife per 38,460 inhabitants in India. The figures for Bihar and the districts of Chotanagpur are all extremely low. However, there are more auxiliary nurse-midwives in Chotanagpur, than in Bihar as a whole. Dhanbad District has the highest number of auxiliary nurse-midwives and Palamau District the lowest.

Health Visitors

At the end of 1965 there were 2,832 health visitors in India. The total number for Bihar is not available. Chotanagpur has 58 health visitors working in its hospitals and dispensaries. The largest number (18) are working in Hazaribagh District; Palamau District has the least (3).

Trained Midwives (Dais)

There were 57,567 trained midwives in India upto January 1, 1966. Data for Bihar State is not available; however, Chotanagpur registers 248 in hospitals and dispensaries. Hazaribagh District has 63 trained midwives, the highest number in Chotanagpur; Palamau has only 13, the lowest.

Paramedical Staff

There is a little information on qualified paramedical personnel in India.

This category of medical personnel was not included in the Chotanagpur Project Survey.

There are, however, some qualified paramedical personnel in the hospitals and dispensaries of Chotanagpur, though the total number of pharmacists, compounders, X-ray and laboratory technicians is not available.

7. Medical Education

Today in India there are over ninety (90) medical colleges with a capacity of 11,000 students per year[1].

The Rajendra Medical College, Ranchi

The Rajendra Medical College named after the later Dr. Rajendra Prasad, President of India, was proposed in 1955 at the end of the first Five Year Plan. Construction started in 1959 and the college began functioning in one block in 1960. The district hospital was used for clinical classes from 1962 to 1965 when the college hospital with 750 beds was completed. Eventually the hospital will accommodate 1,150 beds. In 1966 there was daily an average of sixty-two (62) admissions to the college hospital and about 220 patients were seen daily in the out-patient clinic. The hospital staff includes sixty-two (62) full-time doctors, a hundred and nine (109) honorary doctors, one (1) dentist, sixty-six (66) nurses and one (1) health visitor.

The college buildings are impressive and fairly well equipped. Post-graduate training is planned for the future.

The Mahatma Gandhi Memorial Medical College, Jamshedpur

This privately-owned medical college was established in 1961. At present it does not have a teaching hospital of its own. Clinical experience is acquired at the Tata General Hospital to which it is affiliated.

Dental Education

There are no training schools for dentists in Chotanagpur.

8. Nursing Education

Introduction

The status of nursing service and education in India is difficult to assess. On the national level there is little data available regarding educational institutions, staffing, financing, curriculum, etc. Statistics regarding the

1. The Indian Nation, September 12, 1967.

number of qualified nurses (Grades A and B) and other trained auxiliaries are often incomplete and misleading. In some instances, States (as in the case of Bihar) continue to keep, on their active registers, graduates who have long since left the area or who are not practicing their profession.

The basic nursing courses available in India are :

1. Bachelor of Science Degree in Nursing, (B.Sc. Nursing) offered by some state colleges and universities. The duration of this course is 4 years.
2. General Nursing Schools of two (2) types :
   a) With midwifery (R.N.–R.M.) : Duration 3½ years.
   b) Without midwifery (R.N.) : Duration 3 years.
3. Auxiliary-Nurse-Midwifery (A.N.M.) Course : Duration 2 years.
4. Lady Health Visitors Course: Duration 2½ Years.
5. Midwives (Dais) Course: Duration 6 months.

Not all of these courses are available in Chotanagpur; e.g. there is no B.Sc. degree course in nursing and the course for lady health visitors has been discontinued.

In 1965 the Indian Nursing Council, with the technical assistance of W.H.O. advisors, revised and published a syllabus for courses in general nursing and midwifery. The guide for auxiliary nurse-midwifery schools which was prepared in 1963 was also reprinted in 1965. These two syllabii provide the curriculum and regulations for approved schools.

Nurses Training Schools in Chotanagpur

There are thirteen (13) recognised nurses training schools in Chotanagpur. They are :

I. General Nursing Schools with Midwifery :

A. Tata Main Hospital School, *Jamshedpur.*
B. St. Columba's Hospital School, *Hazaribagh.*

II. General Nursing Schools without Midwifery:

A. Central Hospital School, *Dhanbad.*
B. Holy Family Hospital School, *Mandar* (Ranchi Dt.)
C. Rajendra Medical Hospital School, Ranchi[1].

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1. This school has applied to the Indian Nursing Council for approval for a General Midwifery Course which they have yet to start. Most likely recognition will be accorded by the Council.

D. Heavy Engineering Corporation Hospital School, *Hatia,* (Ranchi District).

III. Auxiliary-Nurse-Midwifery Schools :

A. Ranchi Sadar Training Centre, *Ranchi.*
B. Hazaribagh Sadar Training Centre, *Hazaribagh.*
C. Daltonganj Sadar Training School, *Daltonganj,* (Palamau District).
D. Mohulpahari Christain Hospital Training School, *Mohulpahari,* (Santal Parganas).
E. St. Columba's Hospital School, *Hazaribagh.*[1]
F. St. Luke's Hospital School, *Hiranpur*[2]. (Santal Parganas Dist.).

IV. Midwives (Dais) Course :

A. Giridih Sub-divisional Hospital School, *Giridih,* (Hazaribagh District).

The district-wise distribution and types of nurses training schools are given below :

District	General Nursing Course with Midwifery	General Nursing Course Without Midwifery	A.N.M. Course	Midwives (Dais) Course
Ranchi	0	3	1	0
Hazaribagh	1	0	2	1
Palamau	0	0	1	0
Singhbhum	1	0	0	0
Dhanbad	0	1	0	0
Santal Parganas	0	0	2*	0
	2	4	6*	1

* Includes St. Luke's Hospital School in Santal Parganas District which is not fully functioning at present.

The majority of the nurses training schools in Chotanagpur were established after Independence to supply the need for qualified nursing personnel. Seven (7) of the twelve (12) functioning schools are managed by Government

1. St. Columba's has a section of their general training school for A.N.M.'s, but they do not consider it a separate school.
2. Although approved, this school is only providing domicillary training for A.N.M. students attending Mohulpahari. The school at Mohulpahari is planning to upgrade their programme and as soon as that is done, St. Luke's School Hiranpur, will undertake the complete A.N.M. Course.

and five (5) by private agencies. Those run by private agencies are :

School	*Type of School*	*Managing Agency*
1. Tata Main Hospital School, *Jamshedpur.*	General Nursing with Midwifery	T.I.S.C.O.
2 and 3. St. Columba's Hospital School, *Hazaribagh.*	1. General Nursing with Midwifery and 2. A.N.M.	Church of India
4. Holy Family Hospital, Mandar.	General Nursing Without Midwifery	Society of Catholic Medical Missionaries.
5. Mohulpahari Christian Hospital School, *Mohulpahari.*	A.N.M.[1]	Santal Mission of the Northern Churches (Lutheran)

Including St. Luke's Hospital School, Hiranpur, other Christian Churches manage three (3) schools (with four courses), the Catholic Church manages one (1) and Tisco (Tata Iron and Steel Company) the remaining one (1). The two (2) training schools in Santal Parganas and one (1) in Ranchi District (Mandar) are located in rural areas. All the others are located in urban centres.

9. Planning and Collaboration

In most cases the planning and development of the nursing schools has been done by the sponsors and experts in the field of nursing education. The local people were not involved.

The original needs of the community which led to the establishment of the training school still exist today. But there are new needs also. Some of these are: facilities for training students in public health and domicilary midwifery, the upgrading of general nursing schools to include the integrated midwifery course, post-graduate training in specialized fields such as pediatrics, and psychiatric nursing, residential hostels to provide for the increasing number of students, and finances for staff and student stipends. These needs, along with other problems, of postings, especially in Government hospitals, are of vital concern. Two districts, Palamau and Santal Parganas, do not have any general nursing schools; however, both districts have auxiliary nurse-midwifery programmes.

There is also a need for inter-school collaboration. Apart from occasional professional meetings and student examinations, there is no contact between nursing schools in the same or neighbouring area.

The reasons for this are: lack of transportation and facilities for accom-

1. St. Luke's Hospital School, Hiranpur, to which this school is affiliated, is managed by the Church Missionary Society (Anglican).

modation at other hospitals, and the "inefficiency" of some institutions where it is fairly clear that no teaching staff, not even a single nurse, can be found on duty!

The greatest lack of cooperation as far as the nursing curriculum is concerned is in psychiatric nursing and the nursing of infectious disease patients. None of the nursing schools in the area are able to provide experience in these fields, or in any specialised service for that matter. Although the Kanke Hospital for Mental Disease is located on the outskirts of Ranchi, there is no provision for short-term courses for students. Transportation and lack of accommodation for students are the chief factors involved. In 1966 the professional staff of the Infectious Disease Hospital, Ranchi, consisted of the one (1) doctor and one (1) trained midiwfe. No student could benefit from teaching under these conditions.

The nursing schools are eager to cooperate in providing facilities for practical experience for students, but such cooperation remains a problem. Until more teaching staff, accommodation, transportation and equipment are made available, little can be accomplished.

Financing Nursing Education

Government nursing schools are entirely financed from Government sources. In the case of the new Heavy Engineering Corporation (H.E.C) School, the Government reimburses the company for all hospital and training expenses incurred. The Central Government covers the cost of the Central Hospital Training School in Dhanbad through the Coal Board Welfare Committee.

With the exception of the Tata Hospital School, which is maintained by TISCO, the other private nursing schools in the area receive little or no local help and rely on foreign donations to run their schools. While Government institutions and TISCO can afford good stipends for nursing candidates, private schools cannot. The result is that Government attracts many local candidates, especially among the tribals who receive an additional stipend, and private schools must manage as best as they can.

Stipends for first year nursing students vary from Rs. 108.00 per month (in some company schools) to Rs. 5.00 (in some Christian schools). Government stipends are in the order of Rs. 60.00, 70.00 and 80.00 per month for first, second and third year students respectively. This money is given in hand, over and above room, board and, in some cases, uniform allowance and laundry.

In Government Schools needs are accommodated to available finances. Usually, there is no attempt to increase the school budget from one year to another simply because the authorities know that such increases will not be sanctioned.

Sources of income for recurring costs, in private schools, are foreign donations, and, in some instances, contributions from the local Churches. Since most of the Christian Hospitals in the area are facing financial difficulties, the training schools are an added burden for which there is little financial return. Even after graduation and bond period[1] students from private institutions seek higher paid positions in Government and company hospitals.

Curriculum and Faculty

The heavy requirements of the nursing syllabus combined with the lack of trained teaching staff makes it difficult to evaluate the level of nursing education in Chotanagpur. Facilities for general clinical experience are adequate, even if specialized facilities as previously mentioned, are absent. The new (1965) nursing curriculum is in use in all of the institutions. Teaching methods and techniques vary from one institution to another, but on the whole are adequate. Most of the schools consider their orientation course for candidates who are beginners too short, pointing out that students require more time to learn English and mathematics. Too little supervision of students on the wards is also a problem. Again, the six (6) months training given to midwives (dais) is too short a period for students to acquire the self-assurance they need to practice on their own. Contrary to some opinions, final examination results are consistently good in all schools both Government and private. On the other hand, auxiliary-nurse-midwifery results are not so successful. In both cases, greater effort is required to prepare students for examinations. Because of this, certain aspects of training have been stressed at the cost of a well-rounded education. Much could be done in the way of preparing students for their role in family and community living. At present, however, this area is still sadly neglected.

The lack of library facilities and books for individual use, add to the burden of instructors. Moral instruction is given to students in six (6) of the nursing schools and courses in general and medical ethics in two (2) schools only.

Almost all the nursing schools in Chotanagpur lack trained teaching staff. The majority, in fact, function with one sister tutor, plus an assistant, and occasional lectures by staff doctors. The difficulties encountered in obtaining and maintaining staff are: lack of trained personnel in the area, lack of finances, insufficient hospital staff to provide clinical instruction, periodic transfer of staff, and lack of interest in teaching, especially on the part of doctors. This lack of interest is due to the fact that ordinarily

1. All the nursing schools in the area bond their students. This period is three (3) years in Government schools, anywhere from one (1) to three (3) years in company schools, and from six (6) months to one (1) year in the Christian schools. Because of their low student stipends, the Christian Schools do not feel justified in bonding their students for a longer period.

doctors are not remunerated for their teaching services. Besides in Government hospitals salaries are sometimes delayed and doctors are reluctant to undertake any "extra" tasks'.

Beneficiaries

Government nursing schools in Chotanagpur were primarily started to staff district health institutions. Company hospitals also required staff for their hospitals, and felt the need for starting training schools. The Christian Churches were concerned with the care of the sick and the training of Christians to undertake this.

Differences in the objectives of the different schools had their impact on the recruitment of students. Some hospitals, like Government, aimed primarily at training local candidates; others by setting up high educational standards necessarily limited their enrollment. Unfortunately there is no data available on the trained midwifery (dais) school at Giridih.

The background of students enrolled in nursing programmes in Chotanagpur in 1967 is given below :

Background of Students Enrolled in Nursing Programmes in Chotanagpur in 1967

Nursing Programme	Total No. of Students	Christian		Non-Christian	Tribal	Non-Tribal
		Lay	Non-lay			
I. General Nursing (R.N.) .						
1) Tata Main Hospital School	100	64	—	36	10	90
2) St. Columba's Hospital School	62	58	—	4	48	14
3) Central Hospital (Dhanbad)	39	32	—	7	7	32
4) Holy Family Hospital	92	82	9	1	42	50
5) Ranchi Medical College Hospital	91	71	—	20	57	34
6) Heavy Engineering Corporation Hospital School	6	6	—	—	3	3
Total	390	313	9	68	157	223
II. General Midwifery (R.M.) :						
1) Tata Main Hospital School	24	18	—	6	3	21
2) St. Columba's Hospital School	12	12	—	—	10	2
Total	36	30	—	6	13	23
III. Auxiliary-Nurse-Midwifery (A.N.M.) :						
1) Ranchi Sadar Hospital School	133	105	—	28	102	31
2) Hazaribagh Sadar Hospital School	14	8	—	6	14	
3) Daltonganj Sadar Hospital School	26	10	—	16	—	26
4) Mohulpahari Hospital School	38	37	—	1	37	1
5) St. Columba's Hospital School	10	*	*	*	9	1
Total	221	160**	—	51**	148	59

* — Data not available
** — Total does not include data from St. Columba's Hospital School

The majority of students come from agricultural families. In Jamshedpur twenty-five per cent (25%) of the students enrolled at the Tata Hospital School come from families of industrial workers; in the Dhanbad Central Hospital School, fifty per cent (50%) of the students come from professional families.

There is not a single male nurse in training in Chotanagpur. About eighty-three (83%) per cent of the total number of students enrolled in the general nursing programme (R.N.) are Christian and forty-three (43%) per cent are tribals.

Likewise about eighty-three per cent (83%) of the students enrolled in the general midwifery course (R.M.) are Christian and fifty per cent (50%) are tribals. There are nine (9) religious sisters in nurses training.

Out of 221 auxiliary-nurse-midwifery students, 160 or seventy-two per cent (72%) are Christian. The majority, sixty-seven per cent (67%) are tribals.

A summary of the total number of students in training under the various nursing programmes from 1963 to 1967 is given below :

Total Number of Students Enrolled in Nursing Programmes in Chotanagpur* (1963-1967)

Programme	1963	1964	1965	1966	1967
General Nursing (R.N.)	235**	242**	341**	386**	390
General Midwifery (R.M.)	4***	21	14	31	36
Auxiliary-Nurse-Midwifery (A.N.M.)	163	177	198	208	207

* — Data on the school for trained midwives (dais) at Giridih is not available.
** — Data from the Central Hospital School Dhanbad is not available from 1963-1966.
*** — Data from the Tata Main Hospital for 1963 is not available.

Over the past five years there has been a steady increase of candidates in all programmes. The relatively few students enrolled in the general midwifery course emphasises the current trend of candidates to attend schools outside the area for this course.

The future of the nursing profession in Chotanagpur will depend, to a large extent, on schools upholding high standards and the integrity of the profession, along with providing an opportunity for the training of the local people. The attitude toward nursing as a profession is gradually changing from a "necessary" to a "prestige" profession. The tribal people, especially the Santals, are eager to send their daughters for training. Better marriage opportunities and student stipends are added incentives. Auxiliary-nurse-midwifery courses are particularly encouraged because they provide an opportunity for young girls, who are not matriculates, to earn a living.

Success of Nursing Schools

The growing interest in nursing schools in Chotanagpur can be measured in several terms: the number of graduate nurses trained, increased competition for enrollment, and a better appreciation of medical care by the local people.

The main problems involved in the effective running of the schools are :

1. Lack of finances required to develop and equip the schools.
2. Lack of qualified teaching personnel and home sisters for the hostels.
3. Lack of adequate living accommodation for both staff and students.
4. Long duty hours which frequently involve a nine (9) hour day shift or a twelve (12) hour night duty.
5. Lack of educational background of candidates, especially in English and mathematics.

The directors of the nursing schools seem to be aware of the needs of their schools, but are hampered by lack of finances, staff and proper techniques of management. So even though there is a good deal of progress in nursing education, much still remains to be accomplished.

One point is clear, however, there is no lack of nursing candidates. Competition is keenest in company schools because of the high stipends offered and the good living conditions. The Christian hospitals, too, get more applicants than they can accept. The adivasi girls begin usually with a handicap in language and experience, but they show marked improvement after the first year and in many cases are quite capable of post-graduate training and responsibility. For this reason alone, post-graduate training in specialized fields should be encouraged. Not only must nurses training schools be extended on a horizontal plane, but the vertical aspect of post-graduate education to supply qualified teaching staff in sufficient numbers, should also be developed. Good living conditions and social amenities for both staff and students need also to be provided.

Finally, nursing schools must be aware of the need for preparing students to assume responsibility not only in their professional duties, but also in the community. This means training devoted and capable leaders. The success of nursing schools in the future lies chiefly on whether they can instill in their students a true spirit of service or as one nursing educator put it so well, "a spirit of loving concern".

Paramedical Education

There are no laboratory, X-Ray or pharmacy training schools in Chotanagpur.

10. Summary

Health is affected by many causes and health conditions cannot be separated from the socio-economic millieu in which they prevail. Nor can one compare medical care in developing countries on standards devised for industrialized countries. This is particularly true of Chotanagpur where poverty, population, illiteracy and cultural patterns exert a negative influence on health.

Poverty is the most significant factor influencing health conditions and medical care on the plateau. It influences health conditions because it influences disease patterns. Such diseases as dysentery, cholera, smallpox and tuberculosis are closely related to poverty. Factors influencing health mentioned in this chapter are also determined by poverty. Safe water supply, sanitation, housing infestation, personal hygiene and diet are all, in one way or another, related to the socio-economic level of the community.

Poverty also influences population, illiteracy and, to a certain extent, cultural behaviour. Generally speaking the higher the economic status, the more tendency there is towards family planning. Health education in the face of illiteracy is an arduous task. The indiscipline of patients and relatives is due more often to poverty than to deliberate ill-will.

Medical facilities, staff, medicines and equipment are in proportion to the money avaliable per capita. In India in 1966 the per capita expenditure on public health and medical care was Rs. 2.35[1]. The per capita expenditure in Bihar State for the fiscal year 1965-1966 was Rs. 1.96 (about $0.26).[2]

Internationally accepted health indicators such as the number of hospital beds and professional medical staff per 10,000 people, have also been given. These indices along with infant mortality rates (83/1000 live births in the case of India, and 87/1000 in Bihar) and the percentage of population vaccinated against smallpox (approximately 80% in India and Bihar) serve as basic health determinants.

It is evident that neither the socio-economic conditions of the general population, nor the present resources allotted to health, can assure comprehensive medical care in the near future. Great strides have been made, however, in all areas of health care. The future cannot but promise more.

11. The Church and Health

Healing has always played an important role in the mission of the Church. When the Church came to the Adivasi communities in Chotanagpur about a hundred years ago, sorcery and witchcraft were widely used by the people

1. Op.cit. p. 17.
2. Personal correspondence, Directorate of Health Services, Patna, Bihar.

for preventive and curative purposes.[1] To a great extent these traditional practices were later discarded as many people accepted Christianity. The indigenous system of medicine thus gradually gave place to modern medicine.

Most of the Church-sponsored health institutions began with a medicine chest in the Parish Priest's bungalow or at the Convent Superior's office. With increasing demands for medical care among local people, these small dispensing units grew up to be full-fledged dispensaries, some of them into what may be called 'developing hospitals' with facilities for hospitalization of a limited number of patients, some into larger hospitals as well.

Existing Christian Health Services

At the time of enquiry (1966) the number of Christian Health Institutions in Chotanagpur was 61. Of these the Roman Catholic Church runs four hospitals and 41 dispensaries. In addition, there is also a Rehabilitation Centre. One of the hospitals has a school of nursing attached to it. Of the 41 dispensaries, two are mobile units for the treatment of leprosy. The non-Catholic Churches (which include Anglican, Lutheran, Seventh-Day Adventist, Methodist and Mennonite Missions) maintain 10 hospitals and 6 dispensaries. Among these, there is a large hospital for leprosy. One hospital has facilities for the training of nurses and auxiliary nurse-midwives. At another hospital, in auxiliary nurse-midwifery school is provided.

Ranchi District has the highest concentration of Christian health services and Dhanbad the lowest as the Table below shows :

TABLE 1

Distribution of the Existing Church-Sponsored Health Institutions in Chotanagpur and Santal Parganas by Districts, 1966

District	*Hospitals*	*Dispensaries*
Ranchi	6	28
Hazaribagh	2	3
Palamau	1	2
Singhbhum	1	5
Dhanbad	—	1
Santal Parganas	4	7
Bhagalpur	—	1*
Total	14	47

* Though located in Bhagalpur District, this Dispensary operates mainly in the District of Santal Parganas.

The first Christian hospital in Chotanagpur, St. Columba's Hospital, Hazaribagh, was started in 1892, by the Dublin University Mission. It is now managed by the Society for the Propagation of the Gospel Mission (Chotanagpur Diocese). Five other hospitals were established from 1900 to 1922 — three in Ranchi District and the two others in Santal Parganas.

1. Chaudhury, P.C. Roy, "Palamau District Gazetteers," The Secretariat Press, Patna, 1964, p. 444.

The three in Ranchi District (Ranchi, Murhu and Itki) were again sponsored by the S.P.G. Mission, while the two in Santal Parganas, the Mohulpahari Christian Hospital and the Saldoha Leprosy Hospital, were established in 1922 by the Santal Mission of the Northern Churches.

Later two more hospitals came into existence in Santal Parganas — one at Pakur in 1926 and the other at Hiranpur in 1929 — sponsored respectively by the Methodist Mission and the Church Missionary Society.

From 1929 until Independence no other Christian hospitals were started in the region. In 1947 the Mandar Holy Family Hospital, the first Catholic Hospital in Chotanagpur, was established by the Society of Catholic Medical Missionaries. Then came the Seventh Day Adventist Mission Hospital in Ranchi in 1949.

Between 1956 and 1966, four more hospitals were opened at Kodarma (Society of Catholic Medical Missionaries), Hatbarwa (Mennonite Mission), Jamshedpur (Mercy Sisters) and Lohardaga (Ursuline Sisters). For a list of the hospitals vide Appendix II: Table 1.

While the Christian (non-Catholic) missions were quick to come out with plans for the opening of hospitals, the Catholic congregations have always provided their services to the sick at a humbler level through dispensaries. The Ursuline Sisters were the first in the field. They established the oldest of the eixisting Christian dispensaries at Khunti in 1905. They were practically the only Catholics active in health work for the next thirty years, until 1936, when the Stanislaus College, Sitagarha (Hazaribagh), started a small dispensary. The Sisters of Mercy of the Holy Cross opened their dispensary in Mahuadanr in 1944.

After Independence in 1950, various other congregations established their own dispensaries all over Chotanagpur. Amongst them the Daughters of St. Anne (Ranchi) have as many as 18 centres in the Districts of Ranchi, Palamau and Singhbhum. Other religious communities including the Sisters of Charity of Jesus and Mary (Ghent), the Missionary Sisters of Charity (Calcutta), the Sisters of Charity of Ss. B. Capitanio and V. Gerosa, the Missionary Sisters of the Queen of the Apostles, the Daughters of St. Anne (Calcutta), the Holy Family Sisters and some individual parish priests have a total of 14 dispensaries under their management.

The number of dispensaries run by other Christian groups, on the other hand, is only six. Of these, the oldest is the Benegaria Christian Dispensary which was started in 1922 by the Santal Mission of the Northern Churches. It was a precursor to the Mohulpahari Christian Hospital. The same mission runs another dispensary in Santal Parganas. The S.P.G. Mission also has two dispensaries — one in Ranchi District and the other in Singhbhum. The latter, established in 1926 at Manoharpur, is a large set-up with 30 beds; but, in the absence of a doctor to supervise its activities it is

not counted as a hospital in our present study. The Gossner Evangelical Lutheran Church maintains two dispensaries in Ranchi District, both of recent origin. A list of the functioning dispensaries run by various Christian groups in Chotanagpur may be found in Appendix II: Table 2.

It may be noted that the eight Christian hospitals that were operating in Chotanagpur before Independence had been set up over a period of 37 years. The other six hospitals were opened during the post-Independence period. As regards the dispensaries, there were only ten functioning during the two decades that preceded Independence. After 1947 the growth was enormous: 37 dispensaries were added in 17 years

Bed Strength

The exact number of hospital beds under Church auspices before Independence is not known. But after 1947 nearly 400 beds were provided in addition to those already available. At present there are 1,257 beds in the 14 Christian hospitals in Chotanagpur. Besides, the dispensaries offer facilities for 131 beds, bringing the total bed strength to 1,388. The districtwise distribution of them is shown in the following table :

TABLE II

Number of Beds in the Christian Hospitals and Dispensaries in Chotanagpur, Classified by Districts and Sponsoring Church Groups, 1966

District	Hospital Beds			Deispensary Beds			Grand Total
	Catholic	Other Christian	Total	Catholic	Other Christian	Total	
Ranchi	212	211	423	63	18	81	504
Hazaribagh	28	180	208	—	—	—	208
Palamau	—	35	35	10	—	10	45
Singhbhum	35	—	35	10	30	40	75
Dhanbad	—	—	—	—	—	—	—
Santal Parganas	—	556	556	—	—	—	556
Total	275	982	1257	83	48	131	1388

The table shows that the largest number of beds are provided in the district of Santal Parganas, but it should be pointed out that these include 340 beds in the leprosy hospital at Saldoha.

Taking into account only those beds in general hospitals and dispensaries, 48%, that is, nearly half of the total beds belonging to Christian

agencies are found in the District of Ranchi. The remaining half are distributed amongst the other districts of Chotanagpur with the exception of Dhanbad, where there is only a one bedded dispensary for the treatment of leprosy.

None of the Christian dispensaries in Hazaribagh and Santal Parganas have beds. All the Christian hospital beds in Santal Parganas — a total of 556 — belong to non-Catholic institutions.

The number of beds provided by non-Catholic agencies is almost three times the number under Catholic administration. Of the total available beds, including the specialised ones in Christian hospitals and dispensaries, 74% are found in non-Catholic institutions.

From the break-up of figures in Table II it is clear that most of the bed strength of Catholic institutions (75%) is concentrated in Ranchi District. But while the difference between Catholic and other Christian hospital beds is negligible, the ratio in the provision of dispensary beds works out to be seven to two. In Singhbhum also, Catholics have a slight lead over non-Catholics with three beds to two. In the rest of Chotanagpur, however, beds maintained by other Christian groups markedly out-number those provided by Catholic congregations.

In all Chotanagpur, the Christian churches contribute 13.7% (Catholic 3.5%, other Christian 10.2%) of the total bed provision, as against 19.3% provided by the other private agencies and 67.0% by Government. However, a district-wise analysis reveals that on an average in each district Christian Churches account for 17.0%, the other private agencies 21.8% and Government 61.2% of the total bed strength.

But there are variations in the proportion of beds under different agencies from one district to another as Table III indicates. In most distiricts the Government's provision, as could be expected, far exceeds that of other agencies. Even so, in the district of Singhbhum, the private agencies, particularly industrial concerns provide most of the available beds. In Santal Parganas, the Christian Missions provide the major share—53.7% of the bed strength available in the district.

TABLE III

Total Number of Beds Classified by Districts and Sponsoring Agencies with Percentage of Their Provision in Each District in Chotanagpur, 1966

District	Bed Strength						
	Christian		Other Private Agencies		Government		Total
	No.	%	No.	%	No.	%	
Ranchi	504	10 4	374	7.7	3987	81.9	4865
Hazaribagh	208	18.2	21	1.8	917	80.0	1146
Palamau	45	15.3	50	16.9	200	67.8	295
Singhbhum	75	4.4	1072	63.4	544	32 2	1691
Dhanbad	—	—	345	32.1	729	67 9	1074
Santal Parganas	566	53.7	90	8.7	389	37.6	1034
Total	1388	13.7	1952	19.3	6766	67.0	10106

Available Medical Facilities

It has been noted earlier that out of the 14 hospitals, 13 are general hospitals and one is a leprosy hospital. All the 13 hospitals have facilities for general medical care, nursing service, maternity and child care, clinical laboratory service and pharmacy All, except one Catholic hospital, provide surgical services.

Among the dispensaries, all but two are engaged in general medical care in their respective areas. The two exceptions are categorized as "specialised services" for the treatment of leprosy. As regards maternity and child care, only 14 out of the 47 Christian dispensaries in Chotanagpur have provision for these services. Seven of these are situated in Ranchi district, two each in Singhbhum and Santal Parganas, one each in Hazaribagh, Palamau and Bhagalpur Districts.

There are other services also which not all institutions provide. Ambulance service is available in 10 Christian hospitals: three Catholic and seven non-Catholic. In the hospitals which run mobile dispensaries, the ambulances are also part of the mobile units: the vans used for village visitations serve the needs for ambulance service as well.

Seven mobile dispensaries are run by Christian agencies in Chotanagpur: five Catholic and two non-Catholic. Of the five under Catholic auspices, three are functionally part of hospital services and two are independent units. Of the latter, one is meant exclusively for leprosy work in urban areas. Two of those attached to hospitals are engaged in public health work. The two mobile dispensaries run by other Christian hospitals

provide weekly curative services to people in areas outside their town limits.

Domiciliary midwifery is a routine service provided in four non-Catholic Mission hospitals—three in Ranchi District and one in Santal Parganas. In addition, two dispensaries, both non-Catholic, offer facilities for domiciliary midwifery: one of them is in Ranchi District and the other in Singhbhum. As for the Catholic agencies, only one hospital has facilities to attend to deliveries at home. As many as 26 dispensaries provide for domiciliary medical care and midwifery in their respective areas. Twenty of these are clustered in Ranchi District alone. Two are located in Palamau, two in Singhbhum and one each in Hazaribagh and Bhagalpur Districts.

Three hospitals have blood banks. One of them is set up in Ranchi by the Seventh-Day Adventist Mission. It is quite well-known in the area, and its services are made use of by many health institutions in and around the town. Another is located in Mercy Hospital, Jamshedpur and draws its clientele from among beneficiaries themselves. By arrangement with the Parish Priests blood donors are enrolled in specially maintained registers at many mission stations and sent to the hospital for emergency calls. The third hospital with a blood bank is St. Luke's Hospital, Hiranpur, Santal Paraganas and serves the many accident cases that occur on the roads and in the industrial concerns in the region.

Diagnostic facilities are also regarded as essential services in a hospital. X-ray units are available in nine Christian hospitals in Chotanagpur of which two are Catholic.

St. Ursula Hospital, Lohardaga, under Catholic management, is reported to have family planning as part of its maternity service. Talks are given, though not in a systematic way, on responsible parenthood and the rhythm method to the women who come to the hospital. Similarly in two Catholic dispensaries, the sister-nurses give instructions to their female patients concerning family life and its responsibilities. At six other Christian hospitals birth control information is made available to the people who "want" it. Besides, they carry out sterilization operations and I.U.C.D. insertions. One hospital supplies also other conventional contraceptives.

Only two hospitals, Mandar Holy Family Hospital and Mohulpahari Christian Hospital, provide for physiotherapy and social work. Similarly rehabilitation is a service offered by two hospitals: Mercy Hospital, Jamshedpur and St. Columba's Hospital, Hazaribagh. These three services—physiotherapy, social work and rehabilitation—however, are administered on a very small scale. The practice of social work has yet to attain professional standards.

Medical and nursing education has already been treated in the first

part of this Chapter. Two other major services, specialized services and public health programmes, are discussed under separate headings below.

Specialized Services

A Special Hospital is one which provides "medical and nursing care primarily for only one category of medical discipline"[1]. It is distinguished from a General Hospital which concerns more than one category of medical discip'ine (e.g. medicine, surgery, maternity, etc). Thus a T.B. Sanatorium, a Leprosy Centre, a Mental Hospital and so forth would fall into the category of "Specialized Services." But if a general hospital makes a special provision for the treatment of diseases like T.B., Leprosy, Mental illeness, etc. that particular service is also considered under the same caption even though there is no separate hospital set up for it.

Among the Christian medical services in Chotanagpur, there are three "specialized" agencies—one hospital and two dispensaries—while a few general hospitals and dispensaries also have provision for the care of patients afflicted by leprosy or T.B.

The special hospital in question is the Saldoha Leprosy Home and Hospital in Santal Parganas. Established in 1922 by the Santal Mission of the Northern Churches, the hospital is the only one of its kind among Church enterprises in Chotanagpur. It has a bed strength of 340. In 1966 the daily average of in-patients was 256 and out-patients 1,072 But as is always the case with leprosy institutions, the hospital is not adequately staffed. Its existing professional staff includes one doctor, one nurse and one auxiliary nurse-midwife and a few other paramedical personnel.

The Damien Social Welfare Centre, Dhanbad, was started in 1964 by the Parish Priest of the Catholic Church. But a Committee of lay and religious people are now responsible for the administration of this centre. The work involves treatment and rehabilitation of nearly 900 leprosy patients scattered in twenty colonies within a nine-mile radius around the parish centre. A team of volunteers including a part-time paid doctor, a nurse and two dressers go out on their own to run the weekly clinics in six different localities (The Centre has since acquired a van for the purpose). On an average some 150 patients are given medicines at each clinic There is no provision for hospitalization. But those cases that go into reaction are referred to a local private leprosy hospital for stabilization on the drug. The negative cases requiring corrective surgery of hands and feet are sent to the Leprosy Mission Hospital at Purulia.

The other specialized mobile dispensary in Jamshedpur is run by the Missionary Sisters of Charity (Calcutta). It was established in 1964 and it covers the city area through its six centres. Two sister-nurses with training in leprosy paramedical work visit one centre each day and dispense

1. W.H O. definition

free medicines to the leprosy patients. No record of patients census is available, but it is estimated that over 100 patients are treated at each of these weekly clinics.

Of the general medical institutions, 10 hospitals and 27 dispensaries have provision for the treatment of leprosy or T.B. Leprosy is one of the diseases treated by the Mercy Hospital, Jamshedpur. The hospital attends to the needs of T.B. patients as well, but there are no facilities for the hospitalization of leprosy patients or for those affected by T.B.

However, the concern expressed for the growing number of T.B. patients in the area is justifiably greater than for those with leprosy. The hospital, therefore, maintains friendly contacts with the Ardeshir Dalal T.B. Hospital in the same locality, for technical and other help.

The other two Catholic hospitals with special provision for T.B. are Mandar and Kodarma Holy Family Hospitals. Mandar has a separate 18 bedded ward for the care of T.B. patients. In Kodarma, where the incidence of T.B. is reported to be very high, Holy Family Hospital attends to out-patients only; but if there are persons requiring hospitalized treatment, they are referred to the local Government T.B. Hospital. Patients are also sent to this hospital for diagnostic purposes.

Seven other Christian general hospitals offer treatment to leprosy and/or T.B. patients. In Ranchi, the Seventh-Day Adventist Mission Hospital maintains an isolation unit of three beds for T.B. cases. Leprosy also is treated by this hospital at the O.P.D.

St. Luke's Hospital, Murhu, and St. Deny's Hospital, Itki, in Ranchi District, run weekly clinics for leprosy, but attendance at both of these clinics does not exceed 1000 patients per year.

St. Columba's Hospital, Hazaribagh, treats T.B. cases mostly as out-patients, but if need for hospitalized care arises, it admits patients in its isolation unit comprising three beds. T.B. patients are treated at Nav Jivan Hospital, Satbarwa, in Palamau, where a T.B. ward is presently under construction.

In the district of Santal parganas, the Mohulpahari Christian Hospital has set apart seven beds for T.B. patients. E.J.F. Memorial Hospital at Pakur treats T.B. patients but has no in-patient facilities for them. At Hiranpur, St. Luke's Hospital also attends to cases of T.B. in the O.P.D.

Twenty-four dispensaries, belonging to Catholic congregations and three belonging to other Christian Churches provide out-door treatment for leprosy or T.B., besides general medical care. All the 24 Catholic dispensaries treat T.B. and one cares for leprosy also. Of these, the district-wise break-up is as follows: Ranchi 16, Santal Parganas 4, Singhbhum 2,

ibagh 1, and Bhagalpur 1. The one treating leprosy is located in i under the management of the Missionaries of Charity. It may be oned here that at Maheshmunda (Hazaribagh) through the efforts of arish Priest, the Catholic Ashram Sick Hostel was built in 1967 to modate twenty patients. This is meant particularly for T.B. cases ome to the Dispensary next door, run by the Holy Cross Sisters.

e G.E.L. Church Dispensary at Takarma in Ranchi District attends th T.B. and leprosy patients. St. Francis Hospital, Manoharpur, ghbhum, has arrangement for domiciliary care to leprosy patients in ea; the nurses go out weekly to two different centres to conduct the . The third dispensary which treats leprosy patients is the Benegaria ian Dispensary in Santal Parganas.

veral people contacted during our survey felt the need for more hospital ies for T.B. in the area. The Santal Mission of the Northern Churches ans to set up a T.B. Sanatorium for the region. For this purpose, the ers of their Medical Board maintain frequent contacts with the devi Birla T.B. Sanatorium in Ranchi to study matters relating to ization and maintenance.

prosy is taken care of by the many centres along the eastern border of nagpur and yet there is a sizable number of patients making use of the es of the leprosy hospital at Purulia (West Bengal). This is one of the t and the best equipped leprosy hospitals in India, run by the Leprosy on (formerly Mission to Lepers).

urch institutions are doing pretty little in the field of mental health otanagpur, since there are already two big Government hospitals and rivate nursing home in Ranchi.

Health Programmes

ealth work oriented to educating the people in hygiene and sanitation aking preventive measures against diseases has been studied under ic Health Programmes." This is a field in which Government is ly engaged through the Block Development Schemes. Voluntary ies with the limited resources they have find it hard to devote themselves s work. However, attempts have been made by some to start public work at least on a small scale in their respective areas. Of the Chris- gencies, only Catholic congregations have made a beginning in this ion.

andar Holy Family Hospital has a Public Health Programme which es preventive measures against the spread of diseases, social and education in the villages and school health services. The expenses ct from the hospital funds, but now a Government grant is also being t to extend the work. The mobile unit visits two rural centres in a

area, Nautanr and Patracholi, each once a week. The team consists of a doctor, a public health nurse, two student nurses and a compounder. They cover a radius of 5 - 6 miles around each of these centres. About 18,000 people at both the centres make use of the facilities afforded by the programme. Health teaching is done in villages and in schools through the display of posters.

The second institution engaged in public health work is the Mercy Hospital, Jamshedpur. It has a mobile unit which visits neighbouring villages twice a week and also the mission stations in the area at longer intervals. The following are the centres visited :

Weekly	*Periodical*
Jugradai Village (4)	Chaibasa (4)
Mango Village (6)	Chakradharpur (62)
Soneri (6)	Gua (100)
Haldepahar (20)	

Figures in brackets indicate distance in miles from the hospital. The team includes a doctor, a nurse, a compounder and a ward aide. Besides, cure and prevention of diseases including immunization campaigns, the programme carries out food distribution also. The food stuffs are donated by the Catholic Relief Services.

Banki and Lachragarh in Simdega Subdivision (Ranchi District) are the two other places where the Daughters of St. Anne (Ranchi) are doing public health work on a much smaller scale. At both these places there is no mobile unit. Once every week the Sisters visit a village in the area; the villagers are informed in advance about the plans. Their work involves instructing the villagers on the principles of health and hygiene and preventive steps to be taken. They also teach the women of the village how to maintain kitchen gardens and grow vegetables. The area covered would be about six miles around Bank village and a two-mile radius around Lachragarh. Between 1000 and 5000 people benefit from the activities of the Sisters at each of these centres. But the programme is only in this initial stages and has still to be greatly developed.

Patient Census

As regards patient attendance, relevant data have been obtained from nine hospitals and 30 dispensaries under Christian auspices in Chotanagpur. Accordingly, the total number of patients treated in 1965 was 352,316, of whom 162,385 were treated by the hospitals and 189,931 by the dispensaries. In percentage of the total, they represent 46.1% and 53.9% respectively. A large proportion of them were out-patients, 330,594 or 93.8%. The in-patient admissions (excluding maternity cases) were only 18,832. i.e. 5.4%, while the number of maternity cases was 2,890, i.e. 0.8%.

The break-up of hospital patients by categories was as follows: In-patients (excluding maternity cases) 15,758 (9.7%)), out-patients 144,361 (88.9%) and maternity cases 2,266 (1.4%). In the dispensaries, 3,074 were in-patients (excluding maternity cases), 186,233 out-patients and 624 maternity cases, constituting 1.6%, 98.1% and 0.3% respectively.

Table IV represents the total number of patients treated by Christian health institutions, with a break-up between Catholic and non-Catholic agencies.

From further analysis of these figures it is evident that the number of in-patient admissions in Catholic hospitals was proportionately larger — in percentage of the total number of patients treated by them — than those in the other Christian hospitals : 12% to 9.0%. But the proportion of out-patients treated by Catholics was 86.7% as against 89.6% in other Christian hospitals. With regard to maternity cases, on the other hand, the percentages presented little difference between the different Church groups: 1.3% in Catholic hospitals and 1.4% in other Christian hospitals.

In the dispensaries, the non-Catholics have treated a higher proportion of in-patients (2.9%) than the Catholics (1.4%) The percentage of out-patients was evidently a little lower in non-Catholic dispensaries than in Catholic ones: 96.9% to 98.2%, while maternity cases constituted 0.4% and 0.2% in Catholic and non-Catholic dispensaries respectively.

The patient census in general registered a 17% rise in 1965 over the previous year's figures. But it is in the dispensaries that this increase in attendance is more noticeable, while the number declined a little in the hospital records. The rise in the number of patients at the dispensaries is of the order of 39.6% against an 1.1% decline in the hospital census. (See Table below).

TABLE IV

Total Number of Patients Treated in Christian Institutions, in 1964 and 1965 and the Percentage Increase

Institutions	No. of Patients Treated		Percentage Increase
	1964	1965	
Hospitals	164114	162385	— 1.1
Dispensaries	136029	189931	39.6
Total	300143	352316	17.0

In ordinary circumstances, the proportion of new cases in the daily out-patient attendance may give us an indication of the effectiveness of the treatment provided by the health institution.

TABLE IV

Number of Patients Treated by Nine Hospitals and 30 Dispensaries under Christian Auspices in Chotanagpur, 1965

Patients	Hospitals				Dispensaries				Grand Total	
	Cath.	Other Christian	Total	%	Cath.	Other Christian	Total	%	No.	%
In-patients (Excl. Maternity cases)	4532	11226	15758	9.7	2240	834	3074	1.6	18832	5.4
Out-patients	32604	111757	144361	88.9	159114	27119	186233	98.1	330594	93.8
Maternity cases	491	1775	2266	1.4	576	48	624	0.3	2890	0.8
Total	37627	124758	162385	100.0	161930	28001	189931	100.0	352316	100.0

This was stated in approximate percentages by 11 hospitals and 25 dispensaries. In 10 dispensaries the percentages of new cases fell below 25, but in 14 of them and four hospitals it was between 26% and 50%. In the remaining institutions, i.e. five dispensaries and seven hospitals the figure was over 50%. The percentage never exceeded 75% in any of them.

Of the 15,758 in-patients admitted to hospitals in 1965, 6,574 or 41.7% were surgically treated. They involved 1,773 major operations (nearly 1/4 of the total surgical cases) and 4,801 minor ones. The total mumber of surgical cases has proportionately increased over the previous year, i.e. 5,664 or 39.5% of the total in-patients in 1964. But this increase is much less evident in Catholic agencies than in those of other Christian institutions

Compared to the record of 1964, the proportion of surgical cases out of the total in-patients remained more or less the same in Catholic hospitals, while it showed an increase in the case of other Christian hospitals The difference between the figures of 1964 and 1965 indicate an 11.8% rise in Catholic hospital as against a 17.4% rise in other Christian institutions.

SURGICAL CASES

	1964				1965			
	Major	Minor	Total	% of Total in-pts.	Major	Minor	Total	% of Total in-pts.
Catholic	378	965	1343	33.0	422	1080	1502	33.1
Other Christian	1135	3186	4321	42 1	1351	3721	5072	45 6
Total	1513	4151	5664	39 5	1773	4801	6574	41.7

Complete patient statistics from 1961 to 1966 in the 9 Christian hospitals are given in Appendix II: Table 3. The number of patients visiting the hospitals has been generally on the increase each year, slight fluctuations notwithstanding in a few instances. But in one institution a steady decline over the years is clearly noticeable. The single reason cited by the authorities for this drop in numbers is the establishment of a large, well-equipped government hospital in the same vicinity to which a sizable population of the area are presently attracted.

Common Types of Cases Treated

The report in the earlier part of this Chapter on the morbidity pattern in Chotanagpur was based on the returns of the Christian health institutions as well as the parish centres. Dysentery and diarrhoea are among the commonest of the cases treated everywhere. Respiratory diseases like asthma and pneumonia are also frequently found in many places. T.B. is reported to be of high incidence by all the hospitals.

Other diseases commonly encountered in the Christian hospitals and dispensaries are typhoid, gastro-enteritis, skin and eye diseases. Conditions of sterility among women are also reported in a few hospitals. Among the nutritional disorders anaemia is said to be most common.

But it is of interest to us know what types of cases are usually referred to the Christian hospitals by other agencies which is an indication of the recognition gained by the institutions for their services. The answers given to this question by seven hospitals go to support in many instances, the claims of the hospitals about their own capabilities in certain spheres o service.

One hospital gets a considerable number of surgical cases, materinity cases and some T.B. and accident cases referred to it by others. Of the maternity cases, 25% are reported to be cases of operational obstetrics. Accident cases are mainly from a colliery in the area.

To the second hospital, maternity cases are sent in most instances, since the institution has acquired a name in and around the place for its gynaecological and obstetrical services.

Surgical cases of all types are referred to two other institutions by some local agencies friendly to them. One of them receives cases for general medical care also from a specialized hospital situated in the same area. Besides it admits those requiring blood transfusion whom many institutions as well as individuals send.

Gynaecological problems are referred to one hospital, often by local industrial concerns. Another hospital attends to referrals which include mainly surgical and T.B. cases and some plimyelitis patients.

Yet another is referred to for cases of complicated maternity and accidents. Surgical cases also come in considerable numbers.

Social and Economic Background of the Patients

Complete information is not available on the social and economic background of the beneficiaries of the Church-sponsored health institutions, particularly of the dispensaries where records are rarely kept. However, since most dispensaries are located in isolated mission stations in the countryside, it is safe to say that they serve mostly the local rural people belonging to the low income group. Most of them are also adivasis.

As regards the hospital beneficiaries, data have been obtained from eight hospitals. Working out an average from the figures, it is apparent that the patients visiting these hospitals come from places "where the hospitals are located." Those who come from places "around the hospitals, within a 25 mile radius", constitute 32% of the total beneficiaries, whereas 13%

come from places "over 25 miles, within the district", and 11% from "outside the district." As expected, in most cases, the number of patients decreases as the distance from their home to the hospital increases.

Agricultural workers form the great bulk of the beneficiaries of the Christian hospitals. All excepting two institutions report that the patients living on agriculture constitute 50% or more of the total. When this category is further broken up into landowners and agricultural labourers, the latter are in the majority in three hospitals, while in another institution, the entire group of agricultural workers (95% of the total) is classified as labourers. In one instance the break-up is not available. In three others, landowners outnumber the labourers.

There are not many industrial workers seeking medical help from Christian hospitals. Only those situated in urban-industrial centres draw a small proportion of industrial workers as patients. The explanation is that medical care is provided to all the workers by their respective industrial units. Those who make their way into Church-sponsored institutions are usually referred to by friendly organizations or individuals.

Professionals, businessmen and others are in fair proportion of the total patient census in all but two institutions. In the Holy Family Hospital, Kodarma, it has been noted, 28% of the patients belong to the professional and 10% to the business class, in contrast to Mercy Hospital, Jamshedpur, where both the groups are as low as 1% each. This may be explained in terms of presence or absence of private medical practitioners in the area The assumption is that these groups of people in the higher social strata choose to go to private nursing homes for consultation rather than to regular hospitals

This is borne out by the fact that there are not many private practitioners in Kodarma and therefore a relatively high percentage of patients from the professional class make use of the available hospital services But in Jamshedpur the medical needs of these groups are met by a large number of private doctors. On the other hand, a significantly high proportion, i e 50% of the patients at Mercy Hospital are said to be "unemployed migrants".

Most of the patients coming to these agencies belong to the low income groups, the proportion decreases as the size of their earnings grows. In a large number of dispensaries this is very much the case, with more than 3/4 of their beneficiaries earning less than Rs. 100/- per month.

In the eight hospitals for which we have data, an average of 68.4% of the patients have a monthly income of less than Rs. 100/-. Those with a monthly income of Rs. 100/- — Rs. 300/- and those above Rs. 300/- constitute 21.2% and 10.4% respectively. In three hospitals, the great majority of 'low income' earners are also shown to be small landowners.

Ranchi district which tops the list, is followed by the Santal Parganas, which, in turn is followed by Hazaribagh, Singhbhum and Palamau. But in proportion to the total doctors working in other private and government institutions in each district, the Christian share is found to be the largest in Santal-Parganas: 13.8% of the total doctors in that district are working for Church-sponsored agencies. In Ranchi District, 7% of the doctors are in Christian service. In Palamau the percentage of doctors under church employment is 4%. In Hazaribagh and Singhbhum it is only 3.8% and 1.1% respectively. In Dhanbad, there is no full-time doctor in any Christian health institution.

The figures above do not include part-time doctors working in various agencies. Very few are employed by Christian institutions on a part-time basis. The Damien Social Welfare Centre in Dhanbad has a part-time doctor for its leprosy work. There are two other part-time doctors supervising Catholic dispensary services: one in Ranchi District and the other in Singhbhum. As for the other Christian institutions, there is one part-time doctor on the staff of St. Luke's Hospital.—Hiranpur in Santal Parganas. Two hospitals in Ranchi district do not have fulltime doctors at all and so one doctor from a third institution, run by the same religious denomination, spares his services on a part-time basis to these hsospitals.

As regards their qualifications, four doctors in Catholic hospitals are holders of M.D. or higher degree in Medicine or Surgery, two have M.B.B.S. and one L.M.P. Among those in the other Christian hospitals, four are qualified M.D. or more, 13 M.B.B.S. and two L.M.P.

NURSES: In the 61 Christian health institutions (including hospitals and dispensaries) in Chotanagpur, there are 110 trained nurses of both A and B grades. These represent 14% of the total nurses employed in Chotanagpur, whereas the government nurses constitute 59% and those working in other private institutions 27%.

Of the nurses in Christian institutions, 94 are employed in hospitals and the rest 16 in dispensaries. The district-wise break-up of the figures shows that 53 or nearly half of the nusrses are working in Ranchi District. The rest are distributed among the other districts: Hazaribagh 26, Santal Parganas 14, Palamau 9, Singhbhum 7, and Bhagalpur 1.

But in proportion to the district totals, the majority of the nurses in Santal Parganas, that is, 14 out of 22 (63.6%) belong to the Christian agencies. *In Palamau, nine out of 16 or 56% are in Christian service.* Next comes Hazaribagh where 26 are employed by Church institutions against the total of 88, constituting 31.7%. In Ranchi, the percentage of nurses in Christian agencies is 20.5% of the district total. In the district of Singhbhum, Christian congregations have got a very small share of the total strength of nurses: out of 187 nurses presently employed there, only seven are in Christian institutions (3.7%). In Dhanbad the only nurse working for the Damien Social Welfare Centre is part-time.

Out of the total nursing personnel in Church sponsored agencies, 44 are employed by Catholic and 66 by other Christian institutions. There are four more nurses on the staff of a non-Catholic dispensary, but these are stated to be "untrained junior nurses" assisting the trained ones.

AUXILIARY NURSE-MIDWIVES & DAIS: The shortage of nurses at the dispensaries as usually overcome by employing auxiliary nurse-midwives and trained dais. In hospitals too, they are a much utilised group of personnel.

Working for Christian institutions in Chotanagpur are 49 auxiliary nurse-midwives and 21 trained dais, constituting 36.3% and 8.5% respectively of the total number available in the region. Of the former, 23 are employed in Santal Parganas, 20 in Ranchi District, three in Singhbhum, two in Palamau and one in Hazaribagh. But only 13 of them are in Catholic services, the other 36 being on the staff of other Christian institutions.

As for the trained dais, all excepting two are in dispensary services. The majority of them, i.e. 17 are working in Ranchi District, of the rest there are two in Hazaribagh and one each in Palamau and Singhbhum. Their distribution between Catholic and other Christian agencies is 18 to three.

In addition to doctors and nursing personnel, directly engaged in the care of the sick, there are other categories of staff, professional and non-professional. The professional staff include those working in Laboratory, Pharmacy, X-Ray and other paramedical work. The non-professional group consists of those employed mostly in office and maintenance sections, e.g. clerks, typists, store-keepers, electricians, sweepers, gardeners, etc. While details of these other staff categories are available for all Catholic institutions in Chotanagpur, complete data could not be collected from a couple of institutions belonging to the other Christian Churches.

Not all institutions are adequately staffed. Although the proportion of professional staff in the non-Catholic agencies is larger than in the Catholic agencies, the need for doctors is very much felt in all of them. It has already been mentioned that there are two hospitals administered with the borrowed services of a doctor from another hospital in the area. There are two others wherein the need for lady doctors is quite acute. Lack of funds to offer attractive salaries in some institutions, and lack of facilities for accommodation and social life — in others, are among the main factors hindering any solution of the problem.

Another category where shortage of personnel is experienced by many institutions is "paramedical." There is no even distribution of laboratory staff between the existing hospitals. One agency has three well qualified members in its laboratory, while two other hospitals have none. There is yet another with only an untrained full-time laboratory technician. Similarly, the work of an X-ray technician in one hospital is carried out by

one of the doctors; in another the pharmacist is given the requisite training in X-Ray and employed on a part-time basis.

III. FAMILY PLANNING

Population explosion is not a myth. It is one of the most serious problems which India and the world have to face today It is a problem which has a far-reaching impact on the material and spiritual well-being of society as a whole.

During the last 25 years India's population has increased from 318 million in 1941 to 492 million in 1966 In 1971 the country will have to accommodate 65 million more people.

Improved medical facilities, better maternity and child care and higher standards of general hygeine have decreased the death rate and increased the life span of Indians without a proportionate fall in the brith rate. Agricultural and industrial production in the country too, have not kept pace with population growth.

This constitutes a real problem for India which the Church has to recognise. It is the responsibility of all to help the country and the government to check the growth in population However, from the point of view of the Church, birth control involves a fresh series of social, cultural and psychological problems which should not be lost sight of.

It is necessary that human dignity, and the sacredness of family life are not sacrificed in order to reach statistical targets. Family planning should, therefore, be broad-based and provide for a multi-dimensional approach to the population problem.

Government Activities

The Government, however, while accepting family planning aimed at reducing the birth rate by modern methods of contraception and sterilization, and integrated it with the administration of health services in the country.

The family planning expenditure incurred by the nation during the First Five Year Plan was Rs. 1.45 million. This swelled to Rs. 21.5 million in the Second Plan, while Rs. 248.6 million was spent during the Third Plan. The money earmarked for the Fourth Plan is an enormous outlay of Rs. 230 million.

The aim is to reduce the birth rate from the present figure of 41 per 1,000 to 35 per 1,000 in 1971, and 25 per 1,000 in 1977. This would imply that 90 million couples, who are in the reproductive age group of 15 – 45 must

be persuaded to accept the 'small family' norm and 60% of them must "be motivated to actively practise family planning."[1]

The Government has therefore initiated a crash programme to make necessary services readily available to this population.

In Bihar, the State has set up a Family Planning Bureau under the Administrative Director of Health Services for Family Planning. There is an Additional Director of Family Planning in the Health Department incharge of maternal and child care.

The State Family Planning Board was also started in 1952 with the Health Minister as the Chairman and the Additional Director as the Secretary exofficio.

At the district level, there is a Family Planning Bureau, for each district, under the direction of the District Family Planning Officer, assisted by the Family Planning Assistant Surgeon and a Lady Doctor (F.P.). There is supposed to be a Family Planning Committee for every district but it is not functioning now.

Besides, the Health Centres and Sub-centres in every Block are entrusted with the task of supplying contraceptives and family planning literature to the masses. But data on the extent and effectiveness of their work are not available.

During the First Five Year Plan, 20 urban family planning centres were opened. Each was manned by a Lady Health Visitor. The expenditure incurred was Rs. 28,000. In addition to the old centres, nine more urban and 22 rural centres were set up in the Second Plan. An expenditure of Rs. 10.804 lakhs was incurred. During the Third Plan period, Rs. 40 lakhs was spent on family planning. Four mobile sterilization units were opened at the four divisional headquarters and a subsidy of Rs. 25 per head was sanctioned for every case undergoing sterilization operation, whose monthly income did not exceed Rs. 150/-. Six static sterilization units were started. Provision was also made for organizing orientation camps for the purpose of educating the general public.

It was proposed that the programme be intensified in all the towns and community development blocks in the State. Rs. 900 lakhs was to be expended for the family planning programme during the Fourth Plan.[2]

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1. "Facts about Population & Family Planning in India." Ministry of Health and Family Planning, Govt. of India, New Delhi, 1967, p. 9.

2. Information supplied by Directorate of Health Services, Government of Bihar, Patna, 1966.

In Chotanagpur

For the Division of Chotanagpur (excluding Santal Parganas) at present there are five District Family Planning Bureaux and one State Bureau at Jamshedpur. For intensive family planning work, one block in each district has been chosen: Kanke (Ranchi), Barhi (Hazaribagh), Hariharganj (Palamau), Ghasila (Singhbhum) and Topchanchi (Dhanbad). In the rural family planning centres one lady doctor and a large number of male and female subordinate staff have been posted.

All the Sadar Hospitals have family planning centres. Besides, additional family planning centres have been opened at the subdivisional level also. All maternity and child welfare centres are also engaged in this work.

In Chotanagpur (excluding Santal Paraganas) 132 blocks have been selected for family planning programmes, and one extra staff has been sanctioned for publicity work. Although sterilization and I.U.C.D. or the Loop are being advocated as methods of choice, conventional contraceptives have not been given up.

However, available statistics show that in general, the Government has not made much progress in the implementation of the programmes. (*See* Table below).

TABLE—I

Progress of Sterilization Operations and IUCD (Loop) Insertions in Chotanagpur and Santal Parganas, 1966-67*

Districts	Sterilizations		IUCD Insertions	
	Target	Progress	Target	Progress
Ranchi	2,000	882	6,000	1,020
Hazaribagh	2,000	1,844	6,000	1,250
Palamau	1,000	61	3,000	504
Singhbhum	2,000	3,701	6,000	1,475
Dhanbad	2,000	234	6,000	2,008
Santal Parganas	1,000	1,702	3,000	844
Total	10,000	8,424	30,000	7,101
State Total	71,312	28,680	257,760	23,751

(* The year 1966-67 demarcated is from April to April)

There are no statistics available on the use of other contraceptive methods like the condom, diaphragms, jelly, the pills, etc. The use of oral pills,

presently costing Rs. 8/- for a monthly dose is beyond the reach of most families in Bihar. From the table above, the I.U.C.D. seems to be a failure. The main reason is said to be the improper execution of the whole programme. According to a responsible doctor in the family planning administration, the I.U.C.D. is at best, only a temporary answer for spacing children. Insertion of a loop on a permanent basis cannot be efficiently done in Bihar on a wide scale, because of the lack of personal hygiene, the incidence of diseases, lack of vitamins, etc. Vasectomy, on the other hand, appears to be the most economic, effective and widespread method in the State.

The Church's Response

Besides the Government, voluntary agencies also, particularly the industrial concerns, are actively engaged in family planning work. However, no data have been obtained on the workings of the voluntary agencies in this sphere.

The Catholic Church has successfully avoided the issue so far. But it is doubtful whether it can afford to stay aloof and remain a spectator for much longer. Pope Paul VI, in his latest encyclical letter, observed that "public authorities can intervene, within the limit of their competence, by favouring the availability of appropriate information and by adopting suitable measures, provided that they be in conformity with the moral law."[1]

The 1966 Geneva Conference of the World Council of Churches held that "the Church must always put its work in this field in the context of responsible parenthood and not simply of the limitation of families." But what do the ordinary members of the Church think of this vital question? Are they aware of the nature and the problems of responsible parenthood?

The Chotanagpur Project, therefore, sought to assess the position as it exists today amongst Catholics scattered in 78 parishes in all Chotanagpur. The study was made from two different angles: the couples and the leaders.

The Sample Couples

A hundred couples were selected by a random sampling method from 10 different parishes, that is, 10 from each parish. But only 73 of them could be interviewed, 6 each in six parishes, five each in two parishes, two in one parish and one couple in one parish.

Of the total couples interviewed, 60 were from rural areas and the remaining 13 hailed from urban centres. Excepting three husbands, all the inter-

1. Pope Paul VI, "On the Development of Peoples", Encyclical, March 1967, St. Paul International Book Centre, New Delhi, p. 26.
2. "World Conference on Church and Society — Geneva July 12-26", Official Report, World Council of Churches, Geneva, 1967, p. 72.

viewees were in the reproductive age group 15 — 45 years. The age at marriage of most husbands was between 16-30, while for most wives it was below 25 years. The following Table shows the classification of the couples according to their present age and their age at marriage.

TABLE II

Couples Classified Separately by Age at Present and Age at Marriage

Age (in years)	*At Present*		*At Marriage*	
	Husband	Wife	Husband	Wife
15 and under	—	—	1	3
16 — 20	2	10	27	45
21 — 25	18	17	26	17..
26 — 30	20	26	17	8
31 — 35	18	13	2	—
36 — 40	8	7	—	—
41 — 45	4	—	—	—
46 and above	3	—	—	—

All excepting five couples that were interviewed had children. The total number of children born to the 68 couples was 235 giving an average of over three children per couple. Of these, only 191 had survived, leaving two more couples childless. Over half of the total sample had more than three children. Twenty-five couples had only 1-2 children living. The table below represents the classification of the total couples by the number of children born and living.

TABLE—III

Couples Classified Separately by the Number of Children Born and Children Living and in Percentage of the Total Sample

No. of Children	Born		Living	
	Couples	%	Couples	%
None	5	6.8	7	, 9.6
1 — 2	25	34.3	31	42.5
3 — 4	24	32.9	23	31.5
5 or more	19	26.0	12	16 4

Desire for More Children

It is seen that there were 31 couples with 1-2 children living and 35 others

with three or more children living, constituting 47% and 53% respectively. According to the contemplated government programme, the 53% of those with three children or more would be in for compulsory sterilization. But the wishes of the Catholic couples appeared to run counter to the national policy: Over 70% of this latter group in the sample expressed their desire for more children!

The question was asked, "Do you want to have more children?" When interviewed separately, 63 husbands and 63 wives replied in the affirmative. Among the rest, 10 husbands and eight wives stated that they did not want more children. There were two wives who simply said: "Don't know".

Classifying the couples according to these responses, there were 60 of them i.e. 82.2% where both husbands and wives wanted more children. At the other extreme there were eight couples, i.e. 11% with both parties declining to have more children.

In between, two husbands expressed their desire for more children, while their wives replied "no". There were two other couples where the husbands wanted more children, but the wives were not sure of their own desires. In only one couple the wife desired more children while the husband turned down the suggestion.

Of those who replied in the negative — 10 husbands and eight wives — the majority i.e. eight husbands and five wives stated that economic problems stood in the way of desiring more children.

Among the others, two husbands and two wives referred to old age as a factor, while one wife said that for social reasons she would not want any more children, but she did not explain what these social reasons were.

Knowledge of Family Planning

The idea of family planning did not sufficiently circulate amongst them. The enquiry revealed that 38 or 52% of the husbands and 49 or 67% of the wives had never heard of family planning. The proportion of those who had not heard of family planning was larger in the villages than in the urban areas.

Among those who indicated their knowledge of family planning, the majority said that they did not approve of it. This was more pronounced among the wives than the husbands. The wives who registered their disapproval were 17 out of 24. The husbands, however, were more or less sharply divided over the question, but the casting vote went against family planning: 17 for and 18 against.

A great majority of the Catholic couples are ignorant of the Church's teaching in respect of family planning. Among the respondents, 88.6% of

e husbands and a still larger proportion of wives, 91.6% did not know of y method of family planning approved by the Church.

Evidently the Church has done little in the field of family planning. The sponses reveal lack of communication between the Church and her mem-rs on this vital issue. Certainly something more positive and concrete is pected of the Church. That is what more than half of the sample of uples expressed also: 40 husbands and an equal number of wives (54.8%) sitively replied "yes" to the question whether the Church should do more help people plan their families

Those who did not want the Church to do anything more were 26 isbands (35.6%) and 24 wives (32.9%) A very small proportion, seven isbands or 9.6% and nine wives or 12.3% were not sure if the Church ould do anything in this regard.

ie Church Leaders Interviewed

As regards the Church leaders 240, of them — 120 religious and 120 y — were interviewed. They included 67 parish priests, 73 male lay iders, 46 religious sisters and 46 female lay leaders. Of the rest, four were ictors and four nurses working in the four Catholic hospitals in Chota-gpur.

These leaders were chosen for interviews on the assumption that they, their long experience working in close contact with people in their res-ctive parishes, would be quite conversant with the conditions and pro-ems of family life.

From the answers received in the parishes of Chotanagpur the mean age marriage works out to 19.4 for boys and 18.8 for girls. According to the 61 census, however, in Bihar the mean age at marriage for boys is 19.55 id for girls 14.81. The all India figures are 22.2 (boys) and 16.2 (girls). ost of the respondents in our survey observed that boys in the area were arried before they reached 20 and for girls the age limit was said to be years.

That the child is essential for the consummation of marriage is a belief nerally accepted among the people of Chotanagpur. This was stated by many as 144 members interviewed, i.e. 63% of the total, but 78 respon-nts, constituting 32.5% testified to the contrary. Only a small number them, 18 or 7.5% had no idea of it.

According to the majority of the respondents 169 or 70.4%, the number children in the average family was between five and six. Forty-five of them 18.8% reported that it was not more than four, while a few others (10.4%) id that the number in an average family was more than six but would not ceed eight. Only one respondent could not give a definite figure with

regard to the size of the family in the area.

As for the Catholic families, 166 respondents, constituting 69.2% denied the common belief that Catholics had larger numbers of children than other families in the same area. Only 69 or 28.8% of the leaders were of the view that the size of the average Catholic family was larger than the size of the average non-Catholic family. The remaining five of them (2%) did not know about it.

Family Planning Practices

But it is evident that Catholic men and women do not make any attempt to know and practice family planning as others do. As many as 165 leaders i.e. 68.8% of the total categorically denied that Catholics enquired about family planning at all. These respondents included 42 parish Priests or 62.7% of the total number of parish priests, 54 or 74% of the male lay leaders, 32 or 69.6% of the religious sisters and 35 or 76.1% of the female lay leaders. One doctor and one nurse also gave the same response.

Even so, 56 of the respondents, i.e. 23.3% stated that Catholics ask for information on family planning but only "seldom." In this group were 22 parish priests (32.8%), 15 male lay leaders (20.5%), seven religious sisters (15.3%) and 8 female lay leaders (18.2%), besides two doctors and two nurses. Only 12 respondents, i.e. 5% including two priests, two male lay leaders, five religious sisters, one female lay leader, one doctor and one nurse revealed that Catholics "often" made enquiries to know more about family planning.

Existence of family planning centres or clinics run by various governmental and other agencies should not be lost sight of. More than half of the total number of respondents stated that such centres were operating in their areas. But the responses of the Church leaders revealed that not many people were using these services. Compared to the general population, Catholic families avail themselves very little of the facilities provided in the region (see Table IV).

TABLE—IV

People Practising Family Planning Amongst the General Population and Catholics in Chotanagpur as Reported by Church Leaders

Leaders	Most		Many		Some		None		Don't know	
	Gen. Pop.	Cath.	Gen. Pop.	Cath.	Gen. Pop.	Cath	Gen. Pop.	Cath	Gen. Pop.	Cath.
Parish Priest	—	—	7	—	28	23	12	26	20	18*
Male Lay Leaders	—	—	11	—	25	9	15	37	22	27
Religious Sisters	2	—	5	—	19	13	4	18	16	15
Female Lay Leaders	—	—	4	1	18	6	8	22	16	17
Doctor	—	—	—	—	3	—	—	2	1	2
Nurse	—	—	1	—	1	2	—	—	2	2
Total	2	—	28	1	94	53	39	105	77	81
%	0.8	—	11.7	0.4	39.2	22.1	16.2	43.8	32.1	33.7

*Include 2 respondents who "refused to reply".

It is clear that among the general population, as far as the majority of the respondents knew, only "some" practised family planning, while "none" of the Catholics did. But quite a few leaders (22.1%) revealed that "some" Catholics practised family planning in their areas. It is observed that two parish priests "refused" to respond to the question regarding the practices of the Catholics; the reason given by them was that it was a confessional secret.

Concerning the methods of birth control generally used by the people, multiple responses were elicited on the existing practices of both the general population and Catholic families.

TABLE—V

Methods of Birth Control Used by the General Population and Catholics in Chotanagpur as Reported by Church Leaders (1-Frequency of Responses and 2-Percentage of the Total Number of Respondents)

Methods in use	General Population		Catholics	
	1	2	1	2
Sterilizations	56	45.2	10	18.5
Pills	25	20.2	9	16.7
I.U.C.D. (Loop)	37	29.8	8	14.8
Artificial Contraceptives	34	27.4	9	16.7
Abortions	12	9.7	4	7.4
Indigenous Herbs	51	41.1	24	44.4
Continence/ Rhythm Method	4	3.2	9	16.7
Other*	4	3.2	—	—
Don't know	8	6.5	10	18.5

* Other include 'coitus interruptus and abdominal massage.

Table IV brings out a striking difference between the general population and the Catholics not merely in numbers represented by the respondents, but more significantly in the choices of methods to prevent conception.

In relation to the general population, Catholics have largely avoided modern methods of birth control made available by the family planning centres. Although the number of respondents who indicated recourse to sterilizations by Catholics was second only to those who mentioned indigenous herbs, the percentage given for the general population (45.2%) was much higher than for Catholics (18.5%).

Besides, analysis of the returns shows that sterilizations as well as other modern methods of birth control have found acceptance largely in Singhbhum District.

On the other hand, it is revealed that indigenous herbs are generally accepted for prevention of conception among both the Catholic and non-Catholic communities. The use of herbs is much more pronounced among the Catholics (44.4%), than among the general population (41.1%). This is because of the large number of Adivasis among the Catholic population who are still familiar with traditional medical practices.

Even so, the place of indigenous herbs in use among the non-Catholic families is not of lesser importance; the difference in proportions between those who indicated indigenous medicines, and those who mentioned sterilizations in common use by the general population, was small indeed (41.1% against 45.2%).

Traditional practices of birth control by the intake of herbal medicines and massaging on the abdomen were reported to be very popular in remote villages, especially among the Adivasis in Palamau and Santal Parganas.

According to a few respondents (29.8%), next to the indigenous methods of birth control, the I.U.C.D. or the loop appears to be an accepted thing among non-Catholic families. Only 14.8% of the Church leaders referred to the adoption of the I.U.C.D. by the Catholics.

Similarly, mechanical and other contraceptives like condoms, jelly etc. are more widely used by non-Catholics. But among Catholics, the practice of family planning through the use of these modern methods is reported to be confined to the Anglo-Indian communities in Singhbhum and Purulia Districts.

Another point of note is that the percentage of references to total or periodic continence as a method adopted for family limitation is much higher among Catholics than others. This is perhaps due to the influence of the Church's teaching of the "Rhythm Method" which is very often confused by the ordinary people with a permanent state of continence.

Should the Church Enter the Field ?

Besides the pronouncement in favour of the "Rhythm Method" and "continence" for a happy family life, the Church seems to have made little headway to educate young people, in the parishes, on responsible parenthood. When asked if anything was being done in this direction, many reported "nothing."

The majority of the respondents in the District of Ranchi, however, referred to the holding of "Shadi Schools" (marriage catechumen classes) every year for those intending to get married. Some in Ranchi and Hazaribagh districts mentioned the existence of Grihini Schools, in the Diocese, where young girls were trained for the responsibilities of family life.

In some parishes, the members of the "Mahila Sangh" were said to be active by conducting periodical conferences for the benefit of young women. In one parish the Young Christian Workers had started holding weekly meetings to discuss problems of family life among its members.

But these few activities, under Church auspices, were reported mostly from Ranchi district, while in other districts very little or nothing seems to have been done.

Against this background the leaders also expressed the feeling that the Church should do something more to help people plan their families. As many 144 respondents, i.e. 60% felt so, while 78 or 32.5% of them expressed contrary views. Fourteen members (5.8%), however, did not know whether or not the Church should be more active in this field. The remaining four or 1.7% of the total respondents did not reply.

Of those, who wanted the Church to do something more, 41 were parish priests: in percentage of the total number of parish priests, they constitute 61.2%. Amongst the rest, were 43 male lay leaders or 58.9% of the total, 29 or 63.1% of the religious sisters and 24 or 54.5% of the female lay leaders. Besides, three doctors and four nurses also favoured a more active role of the Church in the field.

This study showed that the influence of the Catholic teaching on the members of the Church is quite strong. By and large, Catholics remained steadfast in their faith by not taking to family planning. A few couples said that they would not approve of family planning because "it is bad and sinful", "because we are not allowed by the Church", "the Church prohibits it."

Many considered family planning to be "against God's will", "against the law of God." Some remarked, "why stop the will of God"? "Let Him do as He likes." Other responses included: "We are not certain whether the children that we have will live at all", "We are married and so God will give us children", "From the Bible we know that God blessed people with large families."

All the same it must be recognised that there are sincere Catholic families who desperately desire to limit their size on economic grounds. Some husbands and wives in our sample population expressed their desire to practise family planning, if only the Church allowed them.

Among the leaders also, there were many who turned down the suggestion that the Church should do anything more for family planning. Their answers are mostly determined by the Church's traditional opposition to family planning methods as practised today. According to them, "family planning is essentially bad", "It is against moral law, because it is against God's Holy will", "Children are the gift of God and so He will take care of them."

On the other hand, there were a few who even held that the populatio problem did not exist. They argued that "it is the food problem tha really exists. What the Church needs to do is to plan to produce mor food. For this we need to exploit the vast human resources available now.'

But most of the respondents who saw the need for the Church's involve ment in this field, without digressing from her teaching emphasized th importance of premarital instruction and guidance services for the youn people in the parishes.

Training of lay workers as family planning instructors was suggested b some leaders. They added that lay organizations like the Catholic Sabh and Mahila Sangh should be activated in this regard.

Some in medical work proposed that the Church should finance "Rhythr clinics" all over the region.

Nevertheless, there were a few respondents who called for a certai relaxation, if not a change, in the present attitude of the Church to famil planning. Some put forward the suggestion to allow the use of the contraceptive pill to regulate ovulation in women.

A lady doctor, in fact, strongly felt that when the Church had no practical solution to the problem of the couples desiring to limit their families, the appeal for self-restraint would not carry conviction with them.

There was another lay respondent who said that "when the Church grants permission for the use of certain methods, we will welcome it because we find it very hard to manage our families with a large number of children."

Conclusion

With regard to the family planning programmes, it is clear, the Church has adopted a policy of non-involvement. This is unfortunate, because it has not benefited anybody.

Differences on moral grounds with the Government should not lead to indifference to the very real problems of ordinary people. It is not correct to say that people simply want more children, or that those who have a large number of children are all happy.

Faithful Catholics, as this survey revealed, may disapprove of the family planning programme. But large family size does make heavy demands on their meagre income. Thus on economic grounds, there are not a few families in need of family limitation. The Church is not really present in such situations to help the people by merely repeating that family planning is against natural law.

The idea of "responsible parenthood" has not been put across to the

IV, RELIGIOUS CONGREGATION INVOLVED IN HEALTH WORK IN CHOTANAGPUR

The first Catholic dispensary in Chotanagpur was started by the Ursuline Sisters in 1905. Since then congregations of religious women, working in collaboration with a devoted lay staff, have made significant contributions in the field of health.

All four (4) Catholic hospitals in the area are managed by religious communities. They also run thirty-four (34) of the forty-one (41) Catholic dispensaries. The number and type of health institutions managed by the twelve (12) congregations involved in health work in Chotanagpur are :[1].

Name of the Congregation	No. of Hospitals	No. of Dispen-saries	Public Health program-mes	Nurses Training School	Cheshire Home
1. The Daughters of St. Anne, Ranchi	—	18	2	—	—
2. Sisters of Mercy of the Holy Cross	—	2	—	—	—
3. Missionary Sisters Queen of the Apostles	—	1	—	—	—
4. Sisters of Charity of Jesus and Mary	—	2	—	—	—
5. The Religious Sisters of Mercy	1	—	1	—	—
6. Daughters of Charity of St. Vincent de Paul	—	—	—	—	1
7. Congregation of the Daughters of St. Anne (Calcutta)	—	1	—	—	—
8. Holy Family Congregation	—	1	—	—	—
9. The Society of Catholic Medical Missionaries	2	—	1	1	—
10. Ursuline Sisters of Tildonk	1	6	—	—	—
11. Missionaries of Charity (Calcutta)	—	2	—	—	—
12. Sisters of Charity of Sts. Bartholomea Capitanio and V. Gerosa	—	1	—	—	—
Total	4	34	4	1	1

1. (cf. p. 97. 1.) A list of the dispensaries managed by religious communities in Chotanagpur is given in the Appendix II: Table 2.

Specialized work among leprosy patients is done by the Missionaries of Charity in Ranchi and Jamshedpur, and four (4) public health programmes in Ranchi and Singnbhum Districts are also directed by religious sisters.

Two (2) Ursuline Sisters and three (3) Holy Cross Sisters are on the staff of the Government District hospitals in Ranchi and Hazaribagh, respectively. Four (4) Sisters of Mercy are on the staff of the Ardeshir Dalal Tuberculosis Hospital in Jamshedpur and four (4) Sisters of Charity of Ss. Bartholomea and V. Gerosa are on the staff of the Tata Hospital, Jamadoba, Dhanbad. The Daughters of Charity of St. Vincent de paul manage a Cheshire Home for mentally and physically retarded children in Jamshedpur.

The only Catholic school for nursing, in Chotanagpur, was started in 1949 at Holy Family Hospital, Mandar, by the Society of Catholic Medical Missionaries.

Medically Trained Religious Personnel

Doctors There are three (3) full-time sister-doctors on the staff of the Holy Family Hospital, Mandar, and one (1) at the Holy Family Hospital, Kodarma. The Mercy Hospital, Jamshedpur, also has a full-time sister-doctor.

Nurses: The total number of religious trained in nursing and working in Chotanagpur are :

Qualification	*Total Number of Trained Religious*
1. Bachelor of Science plus R.N. — R.M.	5
2. R.N. — R.M. (Grades A & B)	34
3. R. N. only	6
4. Auxiliary-nurse-midwives	5
5. Trained midwives (dais)	18
Total	68

The majority of religious sisters engaged in the nursing profession have over three (3) years experience and are over thirty (30) years in age.

Paramedical Staff : There are three (3) Medical Mission Sisters qualified in in paramedical services: One (1) certified compounder and two (2) medical technologists certified by the American Society of Clinical Pathologists. These sisters are on the staff of the Holy Family Hospital, Mandar.

Four (4) Missionary Sisters of Charity, Calcutta, have taken a short-term course in leprosy before undertaking mobile dispensarowork.

The total number of qualified religious sisters engaged in medical work in Chotanagpur are shown in the following Table. (see page 371).

Not counting those in training, there are approximately eighty (80) medically trained religious sisters engaged in health work in the area. There are also three (3) privately trained nurses who are working in the region and one (1) medical technologist (ASCP) assigned to the health unit of the Chotanagpur Project.

Recruitment

In order to carry on the apostolic work of each community, vocations are essential.

The total number of vocations[1]. coming from the province and/or region, of which Chotanagpur is a part, are given below for those congregations involved in health activities.

Total Number of Vocations in the Province and/or Region of which Chotanagpur is a Part (1962-1966)

Name of the Congregation	1962	1963	1964	1965	1966	Total Number (1962-'66)
The Daughters of St. Anne (Ranchi)	24	21	20	18	12	95
Sisters of Mercy of the Holy Cross	13	17	16	15	10	71
Missionary Sisters Queen of the Apostles	3	4	5	0	*	12*
Sisters of Charity of Jesus and Mary	12	6	13	24	*	55*
Religious Sisters of Mercy	0	0	0	0	0	0
Daughters of Charity of St. Vincent de Paul	**					
Congregation of the Daughters of St. Anne (Calcutta)	1	2	0	0	1	4
Holy Family Congregation	0	0	0	0	0	0
The Society of Catholic Medical Missionaries	0	0	0	0	0	0
Ursuline Sisters of Tildonk	13	10	9	11	20	63
Missionaries of Charity (Calcutta)	**					92***
Sisters of Charity of Ss. Bartalomea Capitanio and V. Gerosa	**					

* Data for 1966 not available
** No data available
*** Data is for 1967

1. By 'Vocations' we mean candidates who are admitted to the congregation as novices each year.

Congregation	Doctors (M.D. or over)	Compounders	Medical Technologists	B. Sc. R.N. R.M.	R. N. R.M.	R. N. only	A.N.M.	Trained Midwives	Trained in Leprosy	Number of Institutions run by the Congregation	
										Hospitals	Dispensaries
1. Daughters of St. Anne (Ranchi)	—	—	—	—	10	—	1	17	—	—	18
2. Sisters of Mercy of the *Holy Cross*	—	—	—	—	5	—	—	—	—	—	2
3. Missionary Sisters Queen of the Apostles	—	—	—	—	—	—	—	1	—	—	1
4. *Sisters of Charity of Jesus and Mary*	—	—	—	—	—	—	2	—	—		2
5. Religious Sisters of Mercy	1	—	—	4	—	—	—	—	—	1	—
6. Daughters of Charity.[1] of St. Vincent de Paul	—	—	—	—	—	—	—	—	—	—	—
7. Congregation of the Daughters of St. Anne (Calcutta)	—	—	—	—	1	—	—	—	—	—	1
8. Holy Family Congregation	—	—	—	—	2	1	2	—	—	—	1
9. The Society of *Catholic* Medical Missionaries	4	1	2	1	8	1	—	—	—	2	—
10. Ursuline Sisters of Tildonck	—	—	—	—	8	4	—	—	—	1	6
11. Missionaries of Charity (Calcutta)	—	—	—	—	—	—	—	—	4	—	2
12. *Sisters of Charity* of Sts. Batholomea Capitanio and V. Gerosa	—	—	—	—	—	—	—	—	—	—	1
Total	5	1	2	5	34	6	5	18	4	4	34

1. Data not available

There have been approximately three hundred (300) vocations[1]. to these communities in the five-year period, 1962-1966. During these years, the Daughters of St. Anne (Ranchi) have had a rather steady, although somewhat decreasing, number of vocations — all of whom are tribals. Since 1963 The Sisters of Mercy of the Holy Cross have shown a slight decrease in vocations. Of their total vocations, however, eighty (80) per cent come from Bihar and thirty (30) per cent from Chotanagpur. The two Belgian congregations, the Ursuline Sisters of Tildonk and the Sisters of Charity of Jesus and Mary, show an upward trend in the number of vocations.

Up until 1965 the majority (83.3%) of the vocations of the Sisters of Charity of Jesus and Mary came from outside Bihar State. More recently they have had an increase in the number of local candidates. In 1965-1966 one hundred percent (100%) of the candidates to the Ursuline Sisters came from Chotanagpur. Other communities working in the area have few or no vocations from Bihar or Chotanagpur. The American Sisters of Mercy have only one missionary endeavour in India and, therefore, do not have a house of formation. The Daughters of St. Anne (Calcutta) get relatively few vocations from this area.

In 1966 there were approximately 837 religious sisters[2]. belonging to Congregations working in the health field in Chotanagpur. Of these, 631, or 75.4% were Indian-born.

The following Table indicates the total number of religious sisters in India in those congregations involved in health work in Chotanagpur. (see page 287).

Future Health Activities

The Daughters of St. Anne (Ranchi) are planning the expansion of four (4) existing dispensaries in Chainpur, Ulhatu, Chaibasa and Katkahi. Since the community has adequate qualified personnel to staff new dispensaries, five (5) new ones are also being planned. These will be located in Dighia, Kurdeg, Noadih, Banea and Lachragarh—all in Ranchi District.

The Sisters of Mercy of the Holy Cross hope to reopen their dispensary in Hazaribagh. This dispensary functioned for several years, but was closed in 1966 due to the lack of facilities.

The Ursuline Sisters are establishing seven (7) out-post dispensaries which will operate in conjunction with their hospital in Lohardaga.

1. This figure does not include vocations from congregations for which data are not available. Cf : Table (Vocations).

2. This figure does not include members from congregations for which data are not available.

Total Number of Religious Sisters in India in Congregations Working in the Heath Field in Chotanagpur (1962-1966)

Name of Congregation	1962	1963		1964		1965		1966	
	Absolute Number	Ab. No.	% Increase	Ab. No.	% Increase	Ab. No.	% Increase	Ab. No.	% Increase
The Daughters of St. Anne (Ranchi)	420	438	4.3	458	4.6	475	3.7	485	2.1
Sisters of Mercy of the Holy Cross	125	123	-1.6	125	1.6	136	8.8	158	16.2
Missionary Sisters Queen of the Apostles	52	56	7.8	56	.0	59	5.4	58	-1.7
Sisters of Charity of Jesus and Mary	***	***		***		***		***	
The Religious Sisters of Mercy	8	8	.0	8	.0	8	.0	8	.0
Daughters of Charity of St. Vincent de Paul	***	***		***		***		***	
Congregation of the Daughters of St. Anne (Calcutta)	80	86	7.5	82	-4.8	85	3.7	90	5.9
Holy Family Congregation	556	602	8.3	639	6.1	668	7.9	690	3.3
The Society of Catholic Medical Missionaries*	158	184	16.5	190	4.4	193	1.6	191**	-1.0
Ursuline Sisters of Tildonck	178	176	-1.1	174	-1.1	178	2.3	186	4.5
Missionaries of Charity (Calcutta)	102	123	2.1	145	1.8	175	2.1	197	1.3
Sisters of Charity of Ss. Bartalomea Capitanio and V. Gerosa	741	772	4.0	819	6.3	873	6.6	952	9.0

* Figures are for the American Pro-Province only.
** This figure is for December, 1967.
*** Data not available.

The Sisters of St. Joseph of the Apparition, who have recently come to India and have one (1) convent in Mosaboni, are also planning to undertake dispensary work once they are permanently established. At present their main activities centre around education, visiting villages and catechetical work.

Conclusions

Health activities undertaken by religious congregations in Chotanagpur in the past have been closely associated with parish structures. The pattern of parish development has been: parish bungalow, church, school, convent, dispensary. The majority of dispensaries in the area are run by Sisters primarily engaged, either by constitution or recent directives of their congregation, in educational work. Nine (9) of the twelve (12) communities involved in health work have education as their main field of activity. Only three congregations, The Sisters of Charity of Jesus and Mary. The Daughters of Charity of St. Vincent de Paul and The Society of Catholic Medical Missionaries, have health as their principal work.

The Sisters of Charity of Jesus and Mary have a large number of health institutions in Europe and in mission countries. In Chotanagpur, where they were established in 1962, they are only just beginning to undertake health work. Their prime activity is still in the field of education and will most likely continue to be so for some years to come. Lack of trained personnel for health work is a determining factor. Vocations to this community, which are increasing rapidly are an encouraging sign of vitality.

Nursing is the primary apostolate of the Daughters of Charity of St. Vincent de Paul working throughout the world. The Sisters have only one (1) institution, the Cheshire Home in Jamshedpur, and are not planning any new works in the health field in Chotanagpur.

The Society of Catholic Medical Missionaries was founded by Anna Dengel, M.D., in 1925 solely for the medical mission apostolate. The majority of its members are trained as doctors, nurses, and paramedical staff. Although they run dispensaries in other mission countries, hospitals, training schools, and public health programmes have been their principal works in India.

In Chotanagpur today, the chief problems encountered by religious congregations desiring to expand their health activities are the lack of vocations and trained lay personnel. Although financial difficulties arise, staffing is a much bigger problem. Outside agencies, both Government and private, are in a position to finance certain types of health projects, but unless staff for these institutions can first be assured, such undertakings prove ineffectual.

The lack of qualified personnel in some Catholic hospitals and dispen-

saries, in Chotanagpur, cannot be justified. There is urgent need to train additional personnel and upgrade, either by post-graduate or refresher courses, both religious and lay personnel.

Joint planning and cooperation between the various religious congregations involved in health work could also be a means to ease the burden of shortages in personnel and assure better all-round medical services. Since the medical needs of Chotanagpur lie more in the area of public health than in the setting up of expensive hospitals and dispensaries, public health projects should be devised which could share sources of equipment and staff. Only by close collaboration among the different congregations working in the health field, with other Christian institutions and with government, can the Church in Chotanagpur hope to make a worthwhile contribution to the health needs of the people.

THE DAUGHTERS OF ST. ANNE (RANCHI)

Date of Foundation : 1897
Founder : Archbishop Paul Geoethals (Calcutta)

Principal Works

In India and Chotanagpur : Education, catechetics, health.

Number of Sisters Engaged in Active Work (1966)

In the World : 450
In India : 445
In Chotanagpur : 445

Number of Sisters in Training (1966)

In Chotanagpur : 40

Number of Indian-born Sisters (1966) : 450

Number of Sisters Engaged in Health Activities (1966)

In the World : 25
In India : 24
In Chotanagpur : 24

Daughters of St. Anne (Ranchi) are an indigenous diocesan community of tribal Sisters. Their chief works are in the fields of education, catechetics and health. The Sisters, chiefly Hindi-speaking, have rendered a great service to the parishes, especially in Ranchi District. The congregation runs eighteen (18) dispensaries and

two (2) public health programmes in Chotanagpur. There are twenty-eight (28) professionally qualified Sisters in the health field and five (5) in training.

In 1966 the total membership of the community was 485: five (5) of them are presently located in the Andaman Islands.

SISTERS OF MERCY OF THE HOLY CROSS

Date of Foundation	:	1856
Founder	:	Rev. Theodosius Florentini. O.F.M. Cap., and Rev. Mother Maria Theresia Scherrer.

Principal Works

In the World	:	Education, Social work, health.
In India and Chotanagpur	:	Education, catechetics, health.

Total Number of Sisters Engaged in Active Work (1966)

In the World	:	8,384
In India	:	102
In Chotanagpur	:	29

Total Number of Sisters in Training (1966)

In the World	:	650
In India	:	56
In Chotanagpur	:	34

Total Number of Indian-born Sisters (1969) : 88

Total Number of Sisters Engaged in Health Activities (1969)

In the World	:	2,225
In India	:	35
In Chotanagpur	:	5

The Sisters of Mercy of the Holy Cross are a Belgian Community having over nine thousand (9,000) members throughout the world. Education, catechetics and health work are their principal activities in India and Chotanagpur. The congregation manages two (2) dispensaries in Chotanagpur, one in Mahuadanr (Palamau District) and the other in Maheshmunda (Hazaribagh District). Although outside Chotanagpur, the community operates a 160 bed hospital in Kunkuri, M.P. in the Raigarh-Ambikapur Diocese neighbouring the Ranchi

Diocese. To staff these health works, the community have five (5) trained nurses (R.N.-R.M.). In 1966 the congregation had 158 members in India.

MISSIONARY SISTERS OF THE QUEEN OF THE APOSTLES

Date of Foundation	: 1923
Founder	: Theodore Cardinal Innitzer.

Principal Works

In India and Chotanagpur	: Health, education, catechetics.

Number of Sisters Engaged in Active Work (1966)

In India	: 51

Number of Sisters in Training (1966)

In India	: 7

Number of Indian-born Sisters (1966) : 53

The Missionary Sisters of the Queen of the Apostles are a congregation of Papal Right engaged in health educational and catechetical work in India. The community has recently built a new dispensary in Mahugaon in Ranchi District. There is one (1) trained midwife at this dispensary. In 1966 the congregation had 58 members in India.

MISSIONARY SISTERS OF QUEEN OF THE APOSTLES

Date of Foundation	: 1803
Founder	: Very Rev. E.J. Triest.

Principal Works

Throughout the World, India and and Chotanagpur	: Health, education, social work.

Number of Sisters Engaged in Active Work (1964)

In India	: 50[1]

(1) Information taken from the Catholic Directory of India, 1964, Examiner Press, Bombay-1, p. 434.

Number of Sisters in Training (1956)

In India : 24

Number of Indian-born Sisters (1964) : 19

Number of Sisters Engaged in Health Activities (1966)

In India : 4
In Chotanagpur : 2

The Sisters of Charity of Jesus and Mary are a Belgia engaged in works of health, education and social uplif only comparitively recently come to Chotanagpur and blishing schools, have built one (1) dispensary (at Hulh District) and are building another in Barwadih, also in R Two of the Sisters are auxiliary nurse-Midwives.

THE RELIGIOUS SISTERS OF MERCY

Date of Foundation : 1831
Foundress : Catherine Mc Auley

Principal Works

In the World : Education, health train
In India and Chotanagpur : Health, education, pu work.

Number of Sisters Engaged in Active Work (1966)

In the World : 552
In India : 8
In Chotanagpur : 8

Numbers of Sisters in Training (1966)

In the World : 140
In India : 0
In Chotanagpur : 0

Number of Indian-born Sisters (1966) : 0

Number of Sisters Engaged in Health Activities (1966)

In the World : 82
In India : 5
In Chotanagpur : 5

The Religious Sisters of Mercy are an American congregation of Papal Right. They have eight (8) Sisters in India, two (2) at the Mercy Hospital in Jamshedpur, which they own and operate, four (4) working at the Ardeshir Dalal Tuberculosis Hospital, in the same compound as the Mercy Hospital, and two (2) Sisters who are engaged in the field of education. Religious personnel involved in health include one (1) sister-doctor and five (5) nurses, all with Bachelor of Science Degrees.

DAUGHTERS OF ST. VINCENT de PAUL

Date of Foundation	: 1633
Founders	: St. Vincent de Paul & St. Louise de Marillac.

Principal Works

Throughout the World, India and Chotanagpur	: Health, education, works of charity and zeal.

Number of Sisters Engaged in Active Works (1964)

In India	: 49[1]

Number of Sisters Engaged in Health Activities (1966)

In Chotanagpur	: 1

The Daughters of Charity of St. Vincent De Paul are an international congregation of religious Sisters dedicated to works of charity and zeal especially in the areas of health, education and social welfare. In Chotanagpur their work consists in running a Cheshire Home for mentally and physically retarded children in Jamshedpur.

CONGEGRATION OF THE DAUGHTERS OF ST. ANNE (CALCUTTA)

Date of Foundation	: 1903
Founders	: Most Rev. Brice Meuleman, S.J. Archbishop of Calcutta and Rev. Mother Barbara, I.B.V.M.

1. Information taken from the Catholic Directory of India, 1964, Examiner Press, Bombay-1, p. 432.

Principal Works

In India	:	Education, catechetics, health.
In Chotanagpur	:	Education, health, catechetics.

Number of Sisters Engaged in Active Works (1966)

In India	:	66

Number of Sisters in Training (1966)

In India	:	24

Number of Sisters Engaged in Health activities (1966)

In India	:	5
In Chotanagpur	:	2

The Congregation of the Daughters of St. Anne (Calcutta) is a diocesan congregation whose principal activities are in the fields of education, catechetics and health. The community manages one (1) dispensary in Santal Parganas District which is run by a qualified Sister nurse (R.N.-R.M.). In 1966 the congregation had ninety (90) members.

HOLY FAMILY CONGREGATION

Date of Foundation	:	1914
Founders	:	Rev. Joseph Vithavathil & Rev. Mother Mary Teresa.

Principal Works

In India	:	Education, health, social work.
In Chotanagpur	:	Health, catechetics, education.

Number of Sisters Engaged in Active Work (1966)

In India	:	668

Number of Sisters in Training (1966)

In India	:	22

Number of Sisters Engaged in Health Activities (1966)

In India	:	38
In Chotanagpur	:	5

The Holy Family Congregation is a diocesan community with most of their institutions in Kerala State. Its members engage in education, health, social and catechetical works. The community runs one dispensary in Bhagalpur District. They have three (3) qualified nurses and two (2) auxiliary-nurse-midwives In 1966 the community had 690 members in India.

THE SOCIETY OF CATHOLIC MEDICAL MISSIONARIES

Date of Foundation	:	1925
Foundress	:	Rev. Mother Anna Dengel, M.D.

Principal Works

Throughout the World, India and Chotanagpur	·	Health, nursing and paramedical training schools, public health work.

Number of Sisters Engaged in Active Work (1966)

In Chotanagpur	:	18

Number of Sisters Engaged in Health Activities (1966)

In the World	:	438
In India	:	170
In Chotanagpur	:	18

The Society of Catholic Medical Missionaries is an international society of Papal Right. The community is solely engaged in medical work or in works related to the health field. In Chotanagpur the society runs two (2) hospitals, one (1) nurses training school and directs one (1) public health programme. To carry out this work, the society has four (4) Sister-doctors, one (1) compounder, two (2) registered medical technologists (ASCP) and nine (9) qualified nurse-midwives (R.N.-R.M.), one (1) of whom also has a Bachelor of Science Degree in Nursing. In 1967 the congregation had 191 members in the North Indian region of the American Pro-Province.

URSULINE SISTERS OF TILDONCK

Date of Foundation	:	1832
Foundress	:	St. Angela.

Principal Works

Throughout the World, India and Chotanagpur	:	Education, health, catechetics.

Number of Sisters Engaged in Active Work (1966)

In the World	:	836
In India	:	145
In Chotanagpur	:	138

Number of Sisters in Training (1966)

In the World	:	130
In India	:	41
In Chotanagpur	:	41

Number of Indian-born Sisters (1966) : 112

Number of Sisters Engaged in Health Activities (1966)

In India	:	31
In Chotanagpur	:	30

The Ursuline Sisters of Tildonck are a Belgian community of Papal Right. Their chief works consist in education, health and catechetics. They number over nine hundred (900) in the world. They have one (1) hospital (Lohardaga) and six (6) dispensaries, all in Ranchi District. Their professional staff includes twelve (12) qualified nurses (8 R.N.-R.M.'s and 4 R.M's). In 1966 the community had 186 members working in India.

MISSIONARIES OF CHARITY (CALCUTTA)

Date of Foundation	:	1949
Foundress	:	Rev. Mother Teresa.

Principal Works

Throughout the World, India and Chotanagpur	:	Charity to the poor, sick and destitute, especially in slum areas.

Number of Sisters Engaged in Active Work (1966)

In India	:	197

Number of Sisters in Training (1967)

In India	:	92[1]

(1) Data for 1967.

Number of Sisters Engaged in Health Activities (1966)

In Chotanagpur : 4

The Missionaries of Charity are a congregation of Papal Right founded by Mother Teresa in Calcutta. Their apostolate is charity to the poor, sick and destitute, especially in slum areas. In the health field they are chiefly engaged in leprosy work. They operate two mobile dispensaries for this work in Chotanagpur, one in Ranchi and the other in Jamshedpur. Four (4) Sisters trained in leprosy assist in this. In 1966 the community had 197 members engaged in *active* work in India.

SISTERS OF CHARITY OF ST. BARTHOLOMEA CAPITANIO AND ST. V. GEROSA

Date of Foundation : 1832
Founders : St. Bartholomea Capitanio and St. Vincenza Gerosa.

Principal Works

Throughout the World, India and Chotanagpur : Social Welfare, health, education.

Number of Sisters Engaged in Active Work (1966)

In India : 952

Number of Sisters in Training (1964)

In India : 62[1]

The Sisters of Charity of St. Bartholomea Capitanio and St. V. Gerosa are engaged in social welfare, health and education. They have one (1) dispensary in Santal Paraganas and four (4) of their sisters work on the staff of the Tata Hospital, Jamadoba, Dhanbad. In 1964, the congregation had 482 members in India.

V. EVALUATION

The Church in Chotanagpur appears to have done fairly well in the field of health. Penetrating into the interior tribal villages, first with the medicine box, and then with other equipment and personnel, the Church

(1) Information taken from the Catholic Directory of India, 1964. Examiner Press, Bombay-1, p. 463.

has gradually succeeded in creating, among the people, confidence in scientific medicine, although illiteracy still remains a barrier to the development of a comprehensive system of medical care. But medical care can be effective without being comprehensive.[1]. It calls for development of and also adaptation to the local conditions. Therefore, the contribution of the Church in this sphere of service needs to be evaluated afresh in the larger perspective of health development programmes today.

Measure of Success

As for the Church's performance so far, the responses eliicted from the administrators of the various Church-sponsored hospitals and dispensaries testify to the effectiveness of their activities in the region. Except for three dispensaries, all the respondents claim that they are "successful" or "very successful" in their services to the area. Multiple responses were obtained regarding why they considered themselves successful.

According to many dispensaries the main reason for their success is "cheaper and good medicines provided by them." This certainly is a a great help to many, especially in the lower stratas of society. In a few dispensaries, the patient attendance has been steadily on the increase each year, which is an indication of the faith people have developed in modern medicine. Yet another reason given by the respondents in some dispensaries is that "the people in the areas prefer the services under Christian administration."

Similar claims have been made by the hospitals also. "The hospital fills a definite gap in the existing health services in the area. If it were not there, many people would be deprived of the much needed medical care"– this is the essence of their claims.

Popular recognition, care of the poor, better relations with the villagers, training of nurses and auxiliaries and also carrying the message of the Gospel to the people are considered some of their achievements since the time of their inception.

Besides, there are other improvements in the places where the hospitals are located and which could be attributed to their activities. There is now an increased health consciousness among the people who are gradually learning to make use of the facilities provided. For instance, as observed by one hospital, people's understanding of the benefit of midwifery has improved considerably. They have now got used to visiting the hospital even for normal deliveries.

As a result new health services by other agencies also have been started in many places.

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1. King, Maurice (Ed.) "Medical Care in developing Countries" A Symposium from Makarere, Oxford University Press, Nairobi, 1966, 1: 13c.

Further, with the establishment of the hospitals, the places have acquired a new look, and a new life, with transport and communication and other facilities like shopping centres and electricity

The Christian Presence in the Health Field

Objective study also shows that the Church has been instrumental in bringing scientific medicine to the people in answer to their needs Her contribution to the development of health is considerable, although only 6% of the population in the region are Christians. Christian hospitals in Chotanagpur constitute 11.5% and dispensaries 16.5% of the total number. Bed facilities provided by these hospitals and dispensaries account for 13.7% of the total beds available in Chotanagpur

As regards the personnel, excepting doctors, who are generally in demand everywhere, the Church's contribution is good. The number of doctors in Church-sponsored agencies constitutes 4% of the total, whereas nurses, auxiliary nurse-midwives and trained dais form 14% , 36.5% and 21%, respectively.

Among the beneficiaries of these services, under Christian auspices, the in-patients constitute 14.2% and the out-patients 10.3% of the total treated everyday in all Chotanagpur. The figures below show the Christian contribution in percentage of the total available services:

Hospitals:		**Doctors:**	
Number	. 14	Number	26
Percentage	.. 11.5	Percentage	4.0
Dispensaries:		**Nurses:**	
Number	.. 47	Number	.. 110
Percentage	.. 16.5	Percentage	.. 14.0
Beds:		**Auxiliary Nurse-Midwives:**	
Number	.. 1338	Number	...49
Percentage	.. 13.7	Percentage	. 36.5
Daily Average: In-Patients:		**Dais:**	
Number	.. 674	Number	.. 21
Percentage	.. 14.2	Percentage	.. 8.5
Out-Patients:			
Number	.. 2578		
Percentage	.. 10.3		

Geographically, however, Christian health institutions are unevenly distributed. The district of Ranchi is the most favoured, with six hospitals and 28 dispensaries sponsored by Christian missions.

There is a second cluster, much smaller though in Santal Parganas with four hospitals and eight dispensaries including the one located in Bhagalpur District. Of these four hospitals, one is a specialized institution for leprosy care and treatment, in answer to the very high incidence of leprosy prevailing in the area.

In Hazaribagh district, there are two hospitals and three dispensaries, while Singhbhum has one hospital and five dispensaries including a 30 bedded rural health centre. Palamau follows with one hospital and two dispensaries. Dhanbad has only one leprosy centre to the credit of the Church.

Although there are more hospitals and dispensaries in Ranchi District, bed facilities provided by Christian institutions is proportionately much less there than in Santal Parganas. In percentage of the total beds available in the district, the bed provision by the Church agencies is 10.4%. Christian dispensaries are mainly concentrated in the Gumla and Simdega Subdivisions which have a large Christian population. Twenty out of the 28 dispensaries are operating in the villages of these Subdivisions: Gumla has eight dispensaries, while Simdega Subdivision has 12.

Five out of the six Christian hospitals in Ranchi District are maintained in Ranchi Sadar Subdivision itself. This crowding together could have been avoided, had there been more systematic and coordinated planning.

In Hazaribagh the presence of the Church is represented by two hospitals together providing 208 beds (18.2% of the district total) and three dispensaries. All these, excepting one dispensary, are situtated in the Hazaribagh Sadar Subdivision. The dispensary in question is in Giridih Subdivision. Besides, there is also a Rehabilitation Centre in the making. Chatra Subdivision has no Christian agency engaged in health work. In general, however the health activities of the Church in the district are more important than what one would expect, given the small Christian minority which constitutes only 0.3%. of the total population. It is also noteworthy that of the two hospitals, one is functioning in a predominantly non-Christian area miles away from the parish centre.

Palamau district has only one Christian hospital located in Sadar Subdivision and two dispensaries, one in Latehar and the other in Garhwa Subdivisions. Bed provision under Christian auspices constitutes 15.3% of the total in the district. Christian presence in this district has come into prominence during the 1966-67 famine, when not only the existing hospital in the area, but other Christian hospitals from Ranchi and Hazaribagh districts extended their medical work through mobile health centres

set up all over the district. The percentage of Christians in this district is 2.5%, second only to Ranchi. But barring famine relief work, the participation of Church agencies in the field of health has so far been negligible in an already neglected area.

One hospital and five dispensaries are the Church's contribution in the field of health in Singhbhum. The bed strength under their management constitutes 4.4% of the total. The hospital is located in an urban-industrial setting for the care of those not provided for by the industrial concerns. One of the dispensaries has provision for 30 beds and is active among the rural population. Being a heavily industrialized district, Singhbhum's health services are mostly provided by the industrial firms.

Christian health services in Dhanbad are limited to one dispensary doing leprosy work. There are no bed facilities and no full-time personnel provided by this institution. Dhanbad also is a district of urban-industrial character, with a vast complex of collieries. So the field has been taken by the coal mine companies and also the government through the Coal Mines Welfare Organization, thus reducing the need for voluntary participation. Besides, the Christian population of the district represents only 0.4% of the total. This again explains the modest contribution of the Church in the field of health work in this district.

Santal Parganas has four hospitals and seven dispensaries sponsored by Christian missions, which provide 53.7% of the total beds in the district. It should be pointed out, however, that 3/5 of these bed facilities are set apart for leprosy patients. Christians constitute only 1.1% of the population in this district. The Church's performance, therefore, may be regarded as commendable, although much more remains to be done.

While the Christian Churches tried to promote health in every part of Chotanagpur, their presence is not adequately felt in the districts of Palamau, Hazaribagh and Dhanbad. In the former two, the needs are pressing on account of repeated drought conditions resulting in large scale malnutrition and parasitical infections. There are many avenues still open for the Church to respond to these needs. Palamau is, in fact, the most neglected of all in this respect. In Dhanbad, on the the other hand, the needs are largely met by other agencies. Even then, there are yet certain gaps which could well be filled by an active Church.

If only the Church agencies had realized the extent of needs in these districts, they need not have grouped themselves so closed in Ranchi District.

There is need for a concerted effort to fight disease in Santal Parganas too. The non-Catholic missions appear to be alone in this effort now; the Catholic Church is comparatively inactive in the area. It is time that Catholic congregations also join forces with other Christian groups in

this district, to be more truly present for the better health of the people there.

Planning and Efficiency

To assure the presence of the Church in the field of health the sponsoring agencies have severally responded to the needs of the areas where they are located. But in most instances, the location itself as well as the nature and size of the institutions was not determined by the needs. The degree of financial assistance available at the initial stage was usually the major factor determining the size of an institution. As far as the location was concerned, the tendency has often been to start the hospital or dispensary on the land belonging to the parish or the religious community already working in the area. This was very much the case with the health institutions set up in Ranchi district. Nevertheless, the original idea to start a project on a particular site, had more often than not found a rationale at a later stage when real health needs were discovered and appropriate services provided.

But this tendency to choose a location without adequate pre-planning enquiry has not paid dividends in a few instances. Sometimes hospitals were established without first conducting adequate enquiries on whether or not there was any government plan for a similar health service in the area. So when a larger government hospital came into existence, the patient attendance at the Christian hospitals steadily decreased each year, excepting for certain types of services for which they had gained a name in the area.

In other cases hospitals were started in areas where there were already other institutions, and other hospitals of that size were not necessary. Consequently, the Christian hospitals have not attracted patients in sufficient numbers.

To remedy this situation, two courses of action may be suggested : firstly, to build up closer and better collaboration with the existing institutions in the area and an effective referral system by which the hospital may get a steady flow of patients for certain specific service: secondly to activate their village out-reach programmes which could feed the main hospital with cases needing intensive care.

In order to meet the needs of the area, all the institutions have provided facilities for general medical care, maternity and child care and the minimum diagnostic facilities. Where rural conservatism is a barrier preventing the utilization of available health services by the people, domiciliary medical care and midwifery are made available to the people through weekly or fortnightly visits to villages. In the hospitals, ambulance or mobile unit facilities are provided to take the medicines to the patients in their own villages. This is also an answer to the problem of distance and (lack of transportation experienced by many rural folks.

Two hospitals have provision for public health work also, carrying out curative and preventive services in the villages within a radius of 25 miles from the hospital. These include health education to the general public, and school health services, besides immunization campaigns.

At two other places, small dispensary centres are also engaged in some kind of public health work but on a very small scale and without much of the requisite equipment. Trained sisters make weekly visits to neighbouring villages giving informal talks on health, hygiene and preventive care and instructing the house-wives in kitchen gardening with a view to improving diet.

Many of the Catholic dispensaries carry on some village visiting and domiciliary midwifery as an integral part of their work. The educational aspect of village visiting deserves to be improved to the fullest. Public health, in general, still remains an unbridged gap in the Christian health services.

In areas where the incidences of diseases like leprosy and T.B. are recorded as being high, some of the institutions have provided special facilities for treatment of patients affected by these diseases. With a few exceptions, where isolation wards are provided for the treatment of T B., in all these institutions, cases are treated as out-patients only. A couple of agencies feel the need for the expansion of their existing set-up for the purpose of T.B. care.

Leprosy also is treated in all instances at the out-patients departments In only one place, with a high incidence of leprosy, a large leprosy hospital with bed facilities is operating. Two other dispensary units are exclusively engaged in leprosy work, both in urban areas. Some developing dispensaries functioning in rural areas have arrangements for weekly leprosy clinics in the outlying villages. It is worth mentioning here that in two of the mobile units serving in urban localities, the sister-nurses are specially trained in leprosy paramedical work and thus are able to offer their services to the care of leprosy patients.

Specialized services for T.B., Leprosy or any other diseases is another area where the Church could do much, if the various agencies make an integrated approach to the problems. T.B. is highly prevalent in the districts of Santal Parganas and Singhbhum, and to some extent in Hazaribagh also. The institutions in these areas are aware of the problem but want of resources seem to prevent them from developing their activities further.

Nursing education also is a great need that has been suitably met by two Christian hospitals. Besides, auxiliary nurse-midwifery courses are provided by three hospitals in the area. However, in some schools the local Adivasi girls still form a minority of the trainees. It is therefore, necessary to suggest here that the training of local girls be given due im-

portance, since the responsibility of these institutions is primarily to their own respective regions in Chotanagpur.

As we pointed out blood banks are afforded by three hospitals under Christian management. These are well maintained and utilized. But the need for willing donors is greatly felt. One hospital however, is in constant touch with the parishes and mission stations where special registers are maintained by parish priests for potential blood donors. This is a good example of how parishioners could be involved to consciously help the work of the Christian health institutions. This is also an area where all Christian groups could collaborate.

The Maria Rehabilitation Centre in the Hazaribagh district is a promising new venture. Since there are frequent accidents in the industrial units and mines in the region, the centre can render a very valuable service and also would be able to support itself financially. The choice of its location, however, is not completely satisfactory. A centre like this should be set up in an urban or semi-urban setting easily accessible by the disabled and the deformed. Also it should be centrally located in relation to existing and developing industrial centres. And what is more impotant, it might be better if it were attached to, though not necessarily functionally a part of a hospital known for its efficient surgical service. It is desirable that physical medicine goes hand in hand with reconstructive surgery.

The Church has failed to answer the need for trained medical social workers in her hospitals. Only two hospitals under Christian auspices have provided for social work as part of their service, but as we have said this is not done on a scientific basis. There is no trained social worker in any institution.

Family planning is another sphere of service where the Church has done very little. In particular, Catholic institutions seem to have remained indifferent to the problems of families who would seek any help in this regard. This is a field where the Church is conspicuous by her absence.

Existing professional staff in Church sponsored hospitals are, on the whole, well trained. There is, however, shortage of paramedical personnel. The lack of doctors is also acute in many hospitals as well as in a few large dispensaries, especially in Ranchi district. Under the circumstances, it is not advisable for the senior doctors to shoulder the burdens of general administration, in addition to their medical work. This is the general practice now in all but four hospitals, where there are full-time administrators or business managers appointed for the purpose. For better service to health development, doctors should keep free from administrative responsibilities.

The majority of the hospitals are equipped with X-ray units, but trained X-Ray Technicians are not adequately provided. Similarly, laboratory

technicians are lacking in a few hospitals where untrained pe ployed to attend to the laboratory work. Also in some of t dispensaries, laboratory services are not provided for want o sonnel. In such situations again, it is necessary that the insti have a working arrangement with better equipped agencies refer the cases requiring these diagnostic services. One ho X-Ray facilities, for example, sends its patients to a loca hospital for X-Ray examinations. A dispensary engaged in refers its patients to another private hospital in the area for s

Finally a point that merits attention here is that some dispensaries, mostly under Catholic auspices, have been star modern buildings, but with little thought for future mainter and equipment, and for the type of people they have to serve.

Consequently, they have often run into difficulties because equipment, inefficient personnel and what is more, poor patie Even at the time of our survey, several of these institutions templating the setting up of new up-to-date buildings.

This over-emphasis on buildings, often at the expense of pe in the fitness of things. In an interior rural area, for instan rate tribal people would not know the value of a hospital ser serious illness, a large hospital or dispensary set up with mode including private rooms (presumably for the paying patien out of place.

Sponsors should bear in mind that roadside clinics may be more suited to the genius of our people than modern b ings. Those cases requiring more intensive care referred to a hospital situated in the Anchal or Sub

This does involve adequate staffing—trained these clinics The emphasis should always be material investment.

Towards More Self-Reliance

The Church in the field of health is outside help. Dispensaries are very of benefactors from abroad through th This has become necessary because sources towards their maintenance are often too poor to pay for their

Many dispensaries, therefore

employment of sister-nurses does not involve payment of salaries, but even this does not seem to solve the financial problem these institutions have to face.

As for the hospitals, their resources vary from one agency to another. On an average the contributions from patients through their medical bills cover 1/3 to 1/2 of the total expenses of a hospital. In percentage of the total receipts for the year 1965 the patients' contributions in five of the hospitals under study represented 36.9%, 70.0%, 57.9%, 67.4% and 91.2%. The remaining hospital expenses are usually covered by personal contributions from the sponsors and by donations in cash and in kind from India and abroad. The donations in kind include gift medicines and supplies from overseas benefactors.

This shows that not a small portion of the hospital maintenance cost is borne by the beneficiaries themselves. But it is important to recognize that fee concessions are also given to patients on economic grounds in all hospitals sponsored by Church groups. Very poor patients are treated free. Besides, all the institutions offer their employees and dependents free medical aid. In general, free care accounts for less than 25% of the total recurring expenditure of the hospital. Only in one hospital during 1965, it went as high as 48.5%.

Almost all the hospital administrators interviewed during our survey emphasized the need to make the patients pay for their treatment to augment the resources of the hospital. They do feel that the dependence on grants from outside should be reduced to the minimum. According to them this is possible only if the beneficiaries bear a substantial part of the cost incurred in the administration of therapy.

But it is not easy to define how this should be achieved, given the fact that unlike government institutions, Christian hospitals and dispensaries are not subsidized. Even now, in spite of all concessions and free care, the poorest of the poor do not always look to Christian hospitals for the care and help they need. The impression exists that the treatment offered by Church agencies is often expensive and that only the well-to-do can afford it.

By effective public relations, the general public and the local community should be made to understand that it is mainly their responsibility to see to it that poor patients never lack necessary medical care for want of money. At the same time, however, those who really can afford to pay for their treatment ought to willingly pay for it.

Here again is a case for the appointment of trained social workers in the Christian hospitals. A social worker can play an effective role as a liaison between the administration and the beneficiaries. On the one hand he/she will be in a position to recommend deserving patients to the administration, for concessions, and on the other, he/she can also convince

patients who are financially able, about the need to share the burden of the hospital maintenance.

While trying to strike a compromise between the Church's obligation to serve the poor, and the need to maintain the efficiency and effectiveness of the present services, sponsors often tend to pay low salaries to the staff or to appoint more members of their own religious congregations to important posts. The former is true of institutions where the staff comprise almost exclusively lay members. But then these institutions not infrequently, face the problem of their staff migrating to other agencies which promise better terms of employment.

In Catholic institutions run by religious congregations, on the other hand, the trained lay personnel seldom find their way in. The higher administrative and medical posts remain the monopoly of the religious sisters, notwithstanding expressions of concern and counsel for more lay participation at all levels of administration. To quote a responsible and experienced religious sister, "We (Religious) should accept our lay collaborators with education and experience on an equal footing and be prepared to accept them as heads of departments with an active voice in policy making and department administration. And for those who have never had any experience, we should help them with in-service courses enabling them to develop leadership qualities."

However, in order to prevent the out-flow of the present staff in search of better prospects and also to accept more and more lay personnel for positions of responsibilities, finances will have to be found for increased salary scales for the essential staff in hospitals and dispensaries.

Certainly, one of the many ways to meet this challenge is to involve the local people, especially the members of the parish, to feel their responsibilities *in maintaining these institutions. The parish is to function as* "the agent of christian healing and so has a central place in the exercise of the ministry of healing of the Church."[1]. Prayers for the sick, visitation of the sick, donation of blood for emergency use, etc. are all practical ways of helping in this ministry.

Besides, voluntary financial assistance to run the health institutions under Church auspices is something of vital importance. As such, members of the various parishes should volunteer to contribute money towards health work carried out in the parish or even in the Diocese as a whole.

What the Anglican Church in Ranchi is doing in this connection is worthy of emulation by other Church groups also The parish members

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1 Wilkinson, John, "Christian Healing and the Congregation", Preparatory paper to the Tubingen Consultation, 1964, published, in "The Healing Church", World Council of Churches, Geneva, 1965, p. 31.

in their monthly Church subscription envelopes specify the amount of their subscriptions which may be spent for the services undertaken by the Church, e.g. the school, hospital, orphanage, etc. So every month cash contributions are voluntarily made by the parishioners. The "envelope scheme" could perhaps be introduced in other Churches and areas and thus a special fund for every social service programme of the Diocese could eventually come into being. "The Health Fund" would be utilized to grant subsidies to the various health agencies in the Diocese.

In view of the serious financial difficulties which Christian hospitals and dispensaries face, the present practice of the clergy and religious being given free medical aid or substantial concessions should be questioned. It is unreasonable to expect the congregation running a hospital to bear all or most of the cost of the treatment offered to a priest or a religious sister of a different congregation, who is invariably admitted in a private ward and given all the facilities that a private patient is entitled to. Therefore, each religious congregation or community should set up its own special fund to pay towards the medical bills of its members.

Similar criticism could be levelled against the well-to-do lay parishioners also. It is not uncommon to find a patient expecting fee concession on the ground that he/she is a Christian. All patients should be made to realize that they are entitled to concessions purely on economic grounds and none other. Once again we see the need for good public relations on the part of the sponsors.

Another step in this connection is to introduce what could be called a "Good Samaritan Fund" in which anonymous cash donations might be deposited. Private patients in the wards, well-to-do people in the O.P.D. and visitors to the hospital should be told of the existence of this fund which is to be used to meet the cost of treatment to the poor. By this the hospitals should be able to minimize the burden of free care in their annual budget.

Need for Coordination

Service to the sick is no longer the privilege of the Christian Church alone, nor even of any other religious organization. The Government has entered the field with its vast resources in money and personnel. Other secular institutions and industrial concerns are also active in no small measure. Moreover, medical science has so developed that much of the emphasis on the concept of charity that it used to carry before is lost today.

The need at the present time is to organize health services in each region on a more coordinated basis than hitherto. It is imperative that the various agencies, engaged in health services, establish a system of cooperation and collaboration in the interest of the communities they serve.

Almost all the sponsors of the Christian health institutions are agreed that cooperation of the various organizations and institutions in the total health programme is essential. But among the volunary agencies, especially Church groups, this cooperation could take a more concrete shape. Whatever cooperation and collaboration exists today is mostly on the basis of personal contacts.

There are a few examples of cooperation between health institutions and non-health institutions like schools, orphanges, etc. Most of the Christian hospitals, and several dispensaries as well, provide for school health services which include periodical examination of the children and free treatment for the sick in the schools, often belonging to the same Church organization or religious congregation

In some dispensaries Grihini trainees are placed along with trained nurses to gain some experience in the care of the sick and more particularly, maternal and child care.

There is also an instance of a hospital helping an orphanage by providing free service to the sick orphans. Infants are admitted in the paediatric ward and looked after until they are ready to go back to the Home. In return the orphanage also is obliged to admit any abandoned child whom the hospital sends.

Cooperation between health institutions of different types is also evident in a few places: e.g. a mobile dispensary is given help by a large hospital for the serious cases that require hospitalized care, a general hospital offering free laboratory service to the patients referred to by a leprosy centre, a general hospital cooperates with a specialized hospital in the treatment of specific cases and so forth.

In some instances there is mutual cooperation between two institutions of the same type in technical service through referrals, exchange of information of professional interest, etc. Another example of cooperative effort is observed in a hospital providing facilities for field experience to the auxiliary nurse-midwifery students from another hospital.

Nevertheless, there are many instances where cooperation, or even willingness to cooperate with other institutions, is absent. Often, between the institutions of the same Church, but sponsored by different religious congregations in the area, no step has been taken to maintain mutual contacts, or provide assistance in any form although there is a felt need for it. When a specific need arises, if an agency by-pass another agency in the immediate neighbourhood and goes to yet another agency located farther away to receive help, all belonging to the same Church group—this represents a state of affairs which needs to be deplored and set set right at once.

Being indifferent to the need of some contact with another agency in the same area for the simple reason that that agency belongs to a different Church denomination is not uncommon either. . Collaboration between voluntary and government agencies leaves much to be desired. There is often an atmosphere of mutual distrust and suspicion that hinders any meaningful collaboration. The fault is not always with voluntary agencies.

The need for cooperating woth others is not always recognized. In the course of our survey a hospital administator candidly stated that "Each institution should be adequately staffed and provided with facilities to care for the patients. There is no need for collaboration, when we have enough to do ourselves". But no suggestions were made of any measures how each institution should be adequately equipped !

The entire situation calls for a change of attitude and a willingness to sacrifice some of one's own prestige in the larger interest of a coordinated health development in the area. The ultimate benefit, of course, goes to the people whom these various agencies have an obligation to assist and care for.

The All-Chotanagpur Seminar recognized this need for collaboration between various agencies and pointed out certain areas for joint action which deserve to be explored: exchange of personnel, training of staff and provision of facilities for clinical experience, etc. A Joint Action Committee for all Church (or voluntary) hospitals was also recommended, to be "formed to make decisions about matters of common concern, especially those that need to be discussed with the Government". There should be free exchange and sharing of useful information regarding changes, new services, government regulations, etc.

Besides, it was also urged that "Church institutions should share among themselves the knowledge of the business side of our hospital methods of accounting, methods of economy, methods of adding to income so that we can cooperate more intelligently in our plans and work."

APPENDIX

The following tables are derived from data collected by the Chotanagpur Project's Survey of hospitals and dispensaries in Chotanagpur. Information regarding daily average of in-patients has occasionally been given in terms of bed occupancy instead of daily average admissions. Data regarding professional staff refers only to those working in hospitals and dispensaries in Chotanagpur.

APPENDIX I : TABLE 1

Government General Hospitals in Chotanagpur (1966)

District	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A &B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	10	x[1]	1,331	364	755	93	109	2	2	80	1	2	9
Hazaribagh	16	2	714	548	2,477	70	1	2	1	55	16	7	29
Palamau	4	1	130	18	88	4	0	0	0	4	0	0	2
Singhbhum	6	1	435	346	1,086	23	0	1	1	38	3	1	5
Dhanbad	4	x	651	668	1,568	62	1	2	x	182	3	4	3
Santal Parganas	10	1	196	138	752	16	1	x	2	3	5	3	8
Chotanagpur	50	5	3,457	2,082	6,726	273	112	7	6	362	28	17	47

1. x = None

APPENDIX I : TABLE 2

Government Specialised Hospitals in Chotanagpur (1966)

District	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	8	1	2,516	208	310	4	2	x	x	95	x	x	1
Hazaribagh	3	x[1]	63	8	157	3	1	x	x	1	3	x	x
Palamau	1	x	24	14	15	1	x	x	x	x	x	x	x
Singhbhum	2	1	10	3	5	1	x	x	x	x	x	x	x
Dhanbad	2	x	30	8	32	2	x	x	x	x	x	x	1
Santal Parganas	3	1	120	91	36	2	x	x	x	x	x	x	x
Chotanagpur	19	3	2,763	332	555	13	3	x	x	96	3	x	2

1. x = None

APPENDIX I · TABLE 3

Total Government Hospitals in *Chotanagpur* (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS Full-Time	DOCTORS Part-Time	DENTISTS Full-Time	DENTISTS Part-Time	Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
Ranchi	18	1	3,847	572	1,065	97	111	2	2	175	1	2	10
Hazaribagh	19	2	777	556	2,634	73	2	2	1	56	19	7	20
Palamau	5	1	154	32	103	5	x	x	x	4	x	x	2
Singhbhum	8	2	445	349	1,091	29	x	1	1	38	3	1	5
Dhanbad	6	x[1]	681	676	1,600	64	1	2	x	182	3	4	4
Santal Parganas	13	2	316	229	788	18	1	x	2	3	5	3	8
Chotanagpur	69	8	6,220	2,414	7,281	286	115	7	6	458	31	17	49

1 x = None

APPENDIX I : TABLE 4

Total Catholic Hospitals (General) in Chotanagpur (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	2	x	212	46	38	4	x	x	x	15	x	x	1
Hazaribagh	1	x	28	3	17	1	x	x	x	6	x	x	x
Palamau	x[1]	x	x	x	x	x	x	x	x	x	x	x	x
Singhbhum	1	x	35	2	41	2	x	x	x	5	x	x	x
Dhanbad	x	x	x	x	x	x	x	x	x	x	x	x	x
Santal Parganas	x	x	x	x	x	x	x	x	x	x	x	x	x
Chotanagpur	4	x	275	51	96	7	x	x	x	26	x	x	1

No Catholic Specialised Hospital in Chotanagpur.

1 x = None

APPENDIX I TABLE 5

Total of Other Christian Hospitals (General and Specialised) in Chotanagpur (1966)

DISTRICT	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	4	x	217	123	149	6	2	x	x	22	8	x	3
Hazaribagh	1	x	180	11	31	4	x	x	x	19	1	x	x
Palamau	1	x	35	78	111	1	x	x	x	9	2	x	x
Singhbhum	1	x	30	35	78	x	x	x	x	2	2	x	1
Dhanbad	x[1]	x	x	x	x	x	x	x	x	x	x	x	x
Santal Parganas	4	x	557	345	1,238	9	1	x	x	14	23	x	x
Chotanagpur	11	x	1,019	592	1,607	20	3	x	x	66	36	x	4

1 x = None

APPENDIX I : TABLE 6

Total of All Hospitals in Chotanagpur (General and Specialised) (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	26	1	4,650	1,067	1,266	113	116	3	2	242	9	2	14
Hazaribagh	27	6	1,006	576	2,840	81	2	2	1	81	23	10	21
Palamau	8	1	239	147	564	8	x[1]	x	x	15	2	x	2
Singhbhum	25	6	1,582	1,199	7,489	141	16	5	2	181	17	5	17
Dhanbad	19	7	1,026	967	3,036	90	7	4	x	210	15	4	16
Santal Parganas	17	2	873	574	2,026	27	2	x	2	17	28	x	8
Chotanagpur	122	23	9,376	4,530	17,221	460	143	14	7	746	94	24	78

1 x = None

APPENDIX I . TABLE 7

Total Government Dispensaries in Chotanagpur (General and Specialised) (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	34	6	140	27	724	28	x[1]	x	x	x	5	10	24
Hazaribagh	53	4	140	31	1,547	49	x	x	x	x	14	8	42
Palamau	23	5	46	16	911	17	x	x	x	x	5	3	11
Singhbhum	38	8	99	18	1,036	27	2	x	x	x	1	3	30
Dhanbad	22	8	48	3	642	14	x	x	x	2	4	4	17
Santal Parganas	47	16	73	24	948	27	3	x	x	x	4	5	24
Chotanagpur	217	47	546	119	5,808	162	5	x	x	2	33	33	148

1 x = None

APPENDIX I : TABLE 8

Total Catholic Dispensaries (General and Specialised) in Chotanagpur (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	25[1]	x[2]	46	27	477	x	3	x	x	15	5	x	18
Hazaribagh	3	x	x	x	108	x	x	x	x	1	x	x	x
Palamau	2	x	8	x	34	x	x	x	x	1	x	x	x
Singhbhum	4	x	x	4	16	x	4	x	1	1	x	x	x
Dhanbad	1	x	x	x	200	x	1	x	x	1	x	x	x
Santal Parganas	6	x	6	x	101	x	1	x	x	5	x	x	x
Chotanagpur	41	x	60	31	936	x	9	x	1	24	5	x	18

1. Includes a new dispensary at Kurdeg.
2. x = None

APPENDIX I · TABLE 9

Total of Other Christian Dispensaries (All are General) in Chotanagpur (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	3	1	18	x	6	x	x	x	x	1	x.	x	x
Santal Parganas	3	3	x[1]	x	x	x	x	x	x	x	x	x	x
Chotanagpur	6	4	18	x	6	x	x	x	x	1	x	x	x

No Christian Special Dispensaries in Chotanagpur

1. x = None

APPENDIX I : TABLE 10

Total of Other Private Dispensaries (General and Specialised) in Chotanagpur (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	2	x	x	x	112	2	x	x	x	x	x	x	x
Hazaribagh	x[1]	x	x	x	x	x	x	x	x	x	x	x	x
Palamau	x	x	x	x	x	x	x	x	x	x	x	x	x
Singhbhum	16	13	x	x	750	17	1	x	x	5	4	1	4
Dhanbad	1	1	x	x	x	x	x	x	x	x	x	x	x
Santal Parganas	1	x	90	65	106	4	x	x	x	x	x	x	x
Chotanagpur	20	14	90	65	968	23	1	x	x	5	4	1	4

1. x = None

APPENDIX I . TABLE 11

Total Number of Dispensaries (General and Specialised) in Chotanagpur (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	64	7	204	54	1,319	30	3	x	x	16	10	10	42
Hazaribagh	56	4	140	31	1,655	49	x[1]	x	x	1	14	8	42
Palamau	25	5	54	16	945	17	x	x	x	1	5	3	11
Singhbhum	58	21	99	22	1,802	44	7	x	1	6	5	4	34
Dhanbad	24	9	48	3	842	14	1	x	x	3	4	4	17
Santal Parganas	57	19	169	89	1,155	31	4	x	x	5	4	5	24
Chotanagpur	284	65	714	215	7,718	185	15	x	1	32	42	34	170..

1. x = None

APPENDIX I : TABLE 12

Summary of Health Institutions (Hospitals and Dispensaries) in Chotanagpur — All Categories (1966)

DISTRICTS	Total Number	No. of Institutions with no Data	Total Number of Beds	Daily Average of in-patients	Daily Average of out-patients	DOCTORS		DENTISTS		Nurses (A & B)	Auxiliary Nurse-Midwives	Health Visitors	Trained Dais
						Full-Time	Part-Time	Full-Time	Part-Time				
Ranchi	90	8	4,854	1,121	2,585	143	119	3	2	258	19	12	56
Hazaribagh	83	10	1,146	607	4,495	130	2	2	1	82	37	18	63
Palamau	33	6	293	163	1,509	25	x[2]	x	x	16	7	3	13
Singhbhum	83	27	1,681	1,221	9,291	185	23	5	3	187	22	9	51
Dhanbad	43	16	1,074	970	3,878	104	8	4	x	213	19	8	33
Santal Parganas	74	21	1,042	663	3,181	58	6	x	2	22	32	8	32
Chotanagpur	406	88(*)[1]	10,090	4,745	24,939	645	158	14	8	778	136	58	248

1. (*) Of 88, 65 were Dispensaries
2. x = None

APPENDIX II : TABLE 1

List of Christian Hospitals in Chotanagpur with their bed strength under different categories of service, 1966

Hospital	Bed Strength								
	TOTAL	Medical		Surgical		Maternity	Paediatrics	Isolation	General
		Male	Female	Male	Female				
St. Columbas' Hospital, Hazaribagh	180	20	17	20	25	40	35	3	—
St. Barnabas' Hospital, Ranchi	60	20*	20*	—	—	8	6	6	—
St. Lukes' Hospital, Murhu	50	—	—	—	—	—	—	—	50
St. Deny's Hospital, Itki	45	—	—	—	—	—	—	—	45
Mohulphari Christian Hospital	131	32	32	9	9	18	10	21+	—
E.J.F. Memorial Hospital, Pakur	15	—	—	—	—	—	—	—	15
St. Luke's Hospital, Hiranpur	70	24*	16	—	10	12	8	—	—
Mandar Holy Family Hospital	160	38	22	24	27	5	26	18*+	—
S.D.A Mission Hospital, Ranchi	56	20*	17*	—	—	—	8	11	—
Holy Family Hospital, Kodarma	28	5*	12*	—	—	3	8	—	—
Nav Jivan Hospital, Satbarwa	35	10*	12*	—	—	2	4	7	—
Mercy Hospital, Jamshedpur	35	13*	13*	—	—	—	7	2	—
St. Ursula Hospital, Lohardaga	52	12	12	—	—	12	10	6	—
SALDOHA LEPROSY HOSPITAL	*340*	x	x	x	x	x	x	x	x

*Medical and Surgical are combined in one unit.

+Includes 7 beds in T.B. Ward and 14 in Septic Ward.

*+T.B. Ward.
CAPITAL LETTERS indicate Specialized Hospital

x Particulars not available

APPENDIX II : TABLE 2

	Managing Agency	Place of location of Dispensary with year of establishment
1.	Ursuline Sisters (Tildonck)	—Khunti (1905); Rengarih (1925); Konbir-Naotoli (1926); Tongo (1926); Samtoli (1939); Gumla (1949) —*Ranchi Dt.*
2.	Daughters of St. Anne (Ranchi)	—Katkahi (1950); Banabira (1956); Khanjaloya (1957); Kutungia (1957); Tainser (1960); Gangutoli (1961); Samsera (1961); Jitutoli (1963); Chainpur (1963); Lohardaga (1964); Majhatoli (1964); Bimarla (1965); Ulhatu (1965); Kurdeg (1966) Banki (1966); —*Ranchi Dt.*
		—Kanjia (1958) —*Palamau Dt.*
		—Bandgaon (1961); Chaibasa (1963)—*Singhbhum Dt.*
3.	Sisters of Charity of J & M (Ghent)	—Hulhundu (1962); Barwadih (1966) —*Ranchi Dt.*
4.	Sisters of Mercy of the Holy Cross	—Mahuadanr (1944) —*Palamau Dt.*
		—Maheshmunda (1953) —*Hazaribagh Dt.*
5.	Missionary Sisters of Charity (Calcutta)	—Doranda (1959) —*Ranchi Dt.* —Jamshedpur (1964) —*Singhbhum Dt.*
6.	Daughters of St. Anne (Calcutta)	—Torai (1952) —*Santal Parganas Dt.*
7.	Sisters of Charity of Ss. B. Capitanio and V. Gerosa	—Dudhani-Dumka (1954) —*Santal Parganas Dt.*
8.	Catholic Church (Parochial)	—Bhurkunda (1959) —*Hazaribagh Dt.*
		—Chakradharpur (1965) —*Singhbhum Dt.*
		—Banamasia (1958); Poreya Hat (1960); Dakaita (1963) —*Santal Parganas Dt.*
9.	Holy Family Sisters	—Charkapathar (1964) —*Bhagalpur Dt.*
10.	Missionary Sisters of the Queen of the Apostles	—Mahugaon (1956) —*Ranchi Dt.*
11.	St. Stanislaus College, Sitagarah	—Sitagarha (1936) —*Hazaribagh Dt.*
12.	Damien Social Welfare Centre	—Dhanbad (1964) —*Dhanbad Dt.*
13.	S.P.G. Mission (Chotanagpur Diocese)	—Manoharpur (1926) —*Singhbhum Dt.* —Namdara —*Ranchi Dt.*
14.	G.E.L. Church	—Takarma (1964); Govindpur —*Ranchi Dt.*
15.	N.E.L. Church (Santhal Mission)	—Benagaria (1922); Kacrabani —*Santal Parganas Dt.*

APPENDIX II : TABLE 3

Statistics of patients treated in 9 Christian Hospitals in Chotanagpur, 1961-1966

Institution	Year	In-patients excl. Maternity Cases		Out-patients		Maternity Cases		TOTAL	Surgical Cases		
		No.	%	No.	%	No.	%		Major	Minor	Total
Hospital-I	1961	3159	19.2	12580	79.7	170	1.1	15909	291	813	1104
	1962	3245	19.7	13089	79.2	185	1.1	16518	400	987	1387
	1963	2972	18.2	13169	80.9	146	0.9	16287	319	943	1262
	1964	3026	23.0	9946	75.6	192	1.4	13164	250	766	1016
	1965	2933	20.3	11345	78.6	163	1.1	14441	212	784	996
	1966	3054	17.9	13815	81.0	191	1.1	17060	303	796	1099
Hospital-II	1961	849	7.8	9884	90.5	189	1.7	10922	118	193	311
	1962	705	11.0	5494	85.4	233	3.6	6432	57	163	220
	1963	673	11.4	4969	84.3	254	4.3	5896	58	151	209
	1964	615	12.4	4104	82.5	255	5.1	4974	36	156	192
	1965	786	10.7	6259	85.1	313	4.2	7358	13	179	192
	1966	893	11.8	6469	85.4	189	2.5	7551	78	226	304
Hospital-III	1961	—	—	—	—	—	—	—	—	—	—
	1962	150	2.9	5050	96.9	13	0.2	5213	38	13	51
	1963	374	3.6	10000	96.3	15	0.1	10389	93	54	147
	1964	427	1.9	22000	98.0	23	0.1	22450	92	43	135
	1965	813	5.1	15000	94.8	15	0.1	15828	197	117	314
	1966	867	3.7	22300	96.2	19	0.1	23186	187	143	330

Appendix II : Table 3 (Contd.)

Institution	Year	In-patients excl. Maternity Cases		Out-patients		Maternity Cases		TOTAL	Surgical Cases		
		No.	%	No.	%	No.	%		Major	Minor	Total
Hospital-IV	1961	1645	8.1	18512	91.2	123	0.7	20280	347	997	1344
	1962	1452	7.9	16848	91.5	117	0.6	18417	362	980	1342
	1963	1408	10.9	12431	89.0	134	0.1	13973	294	493	787
	1964	1264	11.1	9989	87.9	113	1.0	11366	235	553	788
	1965	1313	12.1	9472	87.0	103	0.9	10888	163	618	781
	1966	1149	11.8	9624	88.1	148	0.1	10921	192	62	254
Hospital-V	1961	4938	28.6	11373	65.6	942	5.8	17253	494	586	1080
	1962	4471	25.8	11763	68.7	951	5.5	17187	445	628	1073
	1963	4500	26.3	11609	67.8	988	4.9	17097	386	596	982
	1964	4242	25.4	11512	69.1	902	5.5	16656	389	626	1015
	1965	4209	25.5	11742	69.1	913	5.4	16864	396	634	1030
	1966	3839	25.6	12514	68.7	901	5.7	17254	341	735	1076
Hospital-VI	1961	2127	8.8	21825	90.6	124	0.6	24076	457	349	806
	1962	2755	8.2	30453	91.0	225	0.8	33433	415	457	872
	1963	2696	8.2	30494	91.2	246	0.6	33436	384	403	787
	1964	2645	7.8	31560	91.5	236	0.7	34441	270	177	447
	1965	2691	8.7	27896	90.5	215	0.8	30802	324	489	813
	1966	2574	7.9	29437	91.0	205	1.1	32216	308	447	755

Appendix II : Table 3 (Contd.)

Institution	Year	In-patients excl. Maternity Cases		Out-patients		Maternity Cases		TOTAL	Surgical Cases		
		No.	%	No.	%	No.	%		Major	Minor	Total
Hospital-VII	1961	551	3.6	14880	96.0	75	0.4	15506	—	93	93
	1962	598	4.4	17316	95.9	137	0.7	18061	4	91	95
	1963	854	4.4	18373	94.8	143	0.8	19370	3	71	74
	1964	881	5 0	17247	94.2	170	0.8	18298	30	112	142
	1965	962	7.9	10945	90.1	246	2.0	12153	103	125	228
	1966	1110	8.9	11126	89.2	242	1.9	12478	48	108	156
Hospital-VIII	1961	884	3.8	22111	95.7	127	0.5	23122	174	1624*	1798
	1962	959	3.2	28662	96.1	218	0.7	29839	178	1617*	1795
	1963	856	3.3	24823	96.0	172	0.7	25851	160	1550*	1710
	1964	975	4.1	22516	95.0	199	0.9	23690	200	1697*	1897
	1965	1070	3.8	26853	95.3	259	0.9	28182	277	1754*	2031
	1966	1150	4.3	25472	94.6	300	1.1	26922	287	1744*	2031
Hospital-IX	1964	264	1.3	18771	98.5	40	0.2	19075	11	21	32
	1965	981	3.7	24849	96 1	39	0.2	25869	88	101	189

(* Including cataract operations which constitute approximately 15% of the minor surgical cases).

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During the Independence movement under the leadership of Mahatma Gandhi caste barriers broke down and an attitude of service towards the down-trodden was nurtured. In the post-Independence era many more legislative measures were taken to remedy the social evils that existed in the country. Gradually the idea of welfare states was evolved and incorporated into the Constitution of India.

Ideally "in a welfare state all are assured of adequate help in the case of need which may be due to illness, old age, physical or mental handicaps or unemployment. *State assistance is given as a right to those who receive it*."[1].

The concept of a welfare state is more fully defined in Article 41 of the Constitution. "The State shall, within the limits of its economic capacity and development, make effective provision for securing the rights to work; to education and public assistance in cases of unemployment, old age, sickness, disablement, and other cases of undeserved want." This is further elaborated in Article 46 as follows: "The State shall promote with special care, educational and economic interests of the weaker sections of the people and shall protect them from social injustice and all forms of exploitation."

After India gained Independence, a number of laws were passed calculated to bring the existing legislation into conformity with the Constitution, and to help establish the social order envisaged by the Directive Principles of State Policy[2].

Social Welfare Bihar

Bihar, a State rich in mineral resources and large industrial complexes, materially speaking has one of the poorest populations in India. The per capita income, the literacy and educational levels, the yield per acre, size of holding and other indices of socio-economic development still remain below the national average.

The State has a large tribal population[3] who have remained under-developed owing to many historical and cultural reasons. Protective laws have been enacted in the country, and in the State of Bihar, to enable the tribals, also the Harijans and low caste Hindus, to gradually attain the economic, social and educational levels of other communities with whom they live.

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1 *Plans and Prospects of Social Welfare in India*—1951-61. The Planning Commission, Government of India, 1963, p.7.

2 *Chapter VIII on "Special Legislation in India", in Plans and Prospects of Social Welfare in India*. 1951-1961. The Planning Commission, Govt. of India, 1963 p. 107-118, given an elaboration of these laws.

3 The percentage of Scheduled Tribes and Castes in the population of India is 6.8%. In Bihar it is 9.0%.

The Welfare Department, of the State of Bihar, presently implements services designed exclusively for the benefit of the Scheduled Castes and Tribes[1]. The social welfare section of the Education Department has the following responsibilities :

1. The implementation of the Anti-beggary Act, which provides for the prevention and treatment of vagrancy and beggary.

2. Planning services and making provision for the education of the mentally retarded and other physically handicapped persons.

3. Implementation of the Act of 1956, for the suppression of immoral traffic in women and girls.

The Social Defence (Care) Programmes which include the prevention and treatment of juvenile delinquency, welfare services in prisons, and probation come under the Jail Department of Bihar[2]

The State Social Welfare Board, a quasi-government organization, coordinates the efforts of voluntary agencies and organizations. It can allot funds to carry out specific programmes for women and child welfare. In Bihar, the chairman is nominated by the State Government and the *Central Social Welfare Board. Of the 26 members, 13 are nominated by* government and the other half by the Central Welfare Board.

One of the main functions of the Board is to initiate and strengthen voluntary effort. The financial assistance that it gives has increased the tempo of welfare activities in the State. But most of the social service activities are concentrated in urban centres. The city of Jamshedpur has 85 social service organizations, in addition to others, which promote purely cultural and recreational interests among the members.

Some of the active service organizations in Bihar are: The Adimjati Seva Mandal, The Bharat Sevak Samaj, local Rotary and Lions Clubs, The All India Women's Conference and The Ramakrishna Mission. There are also some associations looking after the welfare of the Muslims.

The activities of the various Christian Churches are voluntary. Most of their social welfare programmes are financed with money raised by their own efforts. In very rare cases do they accept money from the government.

In places, where the main industrial firm is the landlord-cum-administrator of the city, many of the educational and welfare schemes for the

1 Jessie Tellis Nayak, "*Social Welfare in Chotanagpur, with Special Reference to the work of Christian Churches.* Background Paper, Doc. No. 14, All-Chotanagpur Seminar, Mandar 1967. p. 7-8.

2 There are no Juvenile Courts in Bihar. The 8 remand homes are located in Patna, Mazaffarpur, Katihar, Monghyr, Gaya, Chaibasa and Dhanbad.

workers and their families are financed by it. TISCO, in Jamshedpur, is an unique example of this. Because of the enlightened approach of this undertaking, the major burden of medical, educational, housing and municipal amenities for a population of nearly 4 lakhs is borne by this firm and supplemented by other smaller companies[1].

II. THE CHURCH AND SOCIAL WELFARE

Social Welfare Programmes of the Church

The mission of the Church involves not merely "the cultivation of the truth, the manifestation of revelation and the development of divine life in her members"[2] It also includes the obligation to provide and care for the physical needs and problems of the people within her own fold, and also of those without. "Faith without works is dead." This is the basic philosophy underlying the Church's mission in the social field, and some of its principal social welfare programmes are briefly described below:

1. Christian missionaries from Europe came to Chotanagpur in the middle of the 19th century. They initiated several practical measures for the social development of the local people, in addition to preaching the Gospel of love and good human relations. More permanent and radical changes to undo some of the social injustices prevalent at the time were brought about by appealing to the government, and by reforming through them laws to protect tenancy rights against land-lords and moneylenders.

2. The glaring poverty of the people was attacked on several fronts. Homes were started for destitute children. Material aid in terms of grain and clothing were given to the needy to ameliorate suffering and want. A few years ago a Food Distribution Programme was started taking food supplies to parishes and institutions to supplement the diet of both the people and the school children. More recently, food supplies have been used for self-help projects. Under these schemes, food has been distributed in return for work done on community projects.

3. From the stage of merely providing care for orphaned children, this type of service has been extended to full-time service and rehabilitation work with handicapped children in one home and for unmarried mothers in another.

4. From the very beginning, the Church has established a network of schools—on the primary, secondary and university levels—"to dispel

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1 Nilima Acharji, "*Social Welfare in an Urban and Industrial Area and the Church*" — A case Study of Jamshedpur, Background paper Doc. 13. All-Chotanagpur Seminar, Mandar, 1967. p. 10-12.

2 Archbishop J.G. Murray, quoted in the *Catholic Church and Social Welfare*, edited by M.T. Boylan. (New York: Greenwich Book Publishers INC. 1961, p.10).

ignorance and superstitious beliefs." This is the Church's most important programme[1].

5. A few years ago, however, it became fairly apparent to the Church authorities that the gap between the educated and the illiterate was increasing. With the tremendous social changes taking place, it was also felt that illiterate young adults had to be prepared for life. Adult education programmes were, therefore, launched to take care of the illiterate villagers. Subsequently, Grihini Schools have since been opened for girls, and education in agriculture, through formal classes and extension service, have been started for boys and men.

6. In Jamshedpur and Ranchi, children of a school going age have been picked up from the streets and given a formal education. Unless this is done for children who roam aimlessly about in the streets, it is impossible to free them from the clutches of poverty This is a new approach to children in urban areas.

7. Although no housing scheme for the poor or the workers has been undertaken, shelter in urban areas for villagers who come to the city on business have been provided in Ranchi for the last forty years. The blind, who are in school, or form part of the Blindmen's cooperative Society are also given living facilities.

8. To provide employment for men and women, printing presses and work rooms have been established. Again to bring about a further social change, most missionaries have identified themselves with the people, living and working with them in the cities as well as in remote areas These men now provide guidance and leadership and often protect the people from unscrupulous Zamindars.

9. Organizations such as the Chotanagpur Cooperative Credit Society, with its branches in the parishes and units in the villages have thus saved the lands of many tribals indebted to rich landlords. They have also helped to raise living standards and to introduce new values such as thrift and hard work into the lives of the people. Through adult education programmes and agricultural extension services, a more scientific knowledge of cultivation has now been brought to the cultivators.

10. Chemical fertilizers and hybrid seeds are being made available for agriculture. Special schools have been started by the Gossner Evangelical Lutheran Church and the Ranchi Archdiocese to train young farmers.

A Technical Training Centre too has been established by the G.E.L. Church.

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1 In 1966, there were in Chotanagpur and Santal Parganas under Catholic auspices 44 primary, 105 middle and 20 high schools. They had 53,993 students enrolled in them. These numbers increase if schools run by other Christian Churches are included.

11. The handicapped are taught to be productive citizens through homes, schools and cooperatives. The aged, the destitute, the delinquent and the beggar are currently provided for by homes and through feeding programmes.

12. Through several Church organizations particularly the Chotanagpur Catholic Sabha, heads of families in the parishes are urged to promote and defend Catholic life and education. They learn to work for their own social, economic and political welfare, as also for that of their fellowmen.

At their monthly meetings, at the village and parish levels, local problems are discussed comprehensively and measures are taken to solve them. These meetings have an educational value while concurrently contributing to the development of social consciousness and a sense of responsibility.

The Catholic Sabha often acts as an advisory body to parish priests, helping schools, grihini programmes and other Church projects to be established and made known through their activities. Qualities of leadership too are developed in the people.

The Youngmen's Christian Association and its counterpart for women, units of the Student Christian Movement, and the All-India Catholic University Students' Federation, also serve in promoting leadership among educated youth.

Food Distribution Programmes

One of man's basic urges is to satisfy his need for food. In India the growing population has to be fed. But rural conservatism, droughts, floods and other causes often thwart the efforts made to grow more food and to become self-sufficient in agriculture.

Even where adequate food supplies are available, the food often lacks in nutrition. To feed people, therefore, and to supply some of their basic nutritional requirements, Catholic Relief Services, U.S.A. and Catholic Charities of India, have distributed food on a large scale. CORAGS (Committee for Relief and Gift Supplies) acts as the distributing agency for the other Christian denominations. The bulk of the food supplies come from the United States of America. Food is also received from other countries like Germany, under the "Feed the Children's Programme".

During its field work, the Chotanagpur Project Team has interviewed 88 consignees of food, distributed through Catholic Charities, in four separate dioceses. These include parishes, schools, boarding and Grihini Schools. Though this number does not comprise all the existing consignees, a brief analysis of their activities gives an idea of the nature and importance of the Food Distribution Programmes.

During 1966 through the 88 consignees, 20,814 children were given mid-day meals in schools. The meals of school boarders, including 8 grihini schools, were supplemented through these services. Thousands of families benefitted by the food thus distributed in the parishes.

In 1966, food was distributed to 48,010 families. Of these 85% were small farm-owners. More than 95% were parishioners. Eleven per cent were industrial workers, only 1% were unemployed, and a negligible number were beggars. Of the total number of beneficiaries 78% were Catholic, almost 92% tribals. None of them had an income of more than Rs. 200/- a month. Six percent had incomes between Rs. 100 and 200 The majority, 63%, had an income of less than Rs. 50/- per month. About one third of the total earned between Rs. 50 and 100. More than half the beneficiaries were considered as average people economically. Only 3% were above average. The rest (47%) were considered "below average"

During 1966 the donor agencies felt it necessary to change their policy of free food distribution. They encouraged individuals and institutions to experiment with the idea of giving food in return for work.

In 1967, hundreds of "food for work" projects were launched. These projects, while providing work for the unemployed, and food for their families, also leave behind permanent benefits for the community, such as wells, fences and small irrigation schemes, which are constructed under these *programmes.*

In 1967, "food for work" projects were carried out in most of the parishes, particularly in the famine and scarcity areas of Chotanagpur. During the time of our survey, however, only a few parishes were experimenting with this type of project.

Evaluation

1. Though this programme takes much energy and time, it feeds and sustains many poor under-nourished people, most of them children. Since malnutrition is a major problem in India, this programme also satisfies a vital need, and contributes to the improvement of the children's health. Nurses in charge of school dispensaries report that these programmes, side by side with the distribution of free vitamins, have helped children build up resistance to stomach and other ailments.

2. The programme has helped schools to keep children from "dropping out." The warm mid-day meal is an added attraction to many. It encourages the children to come to school each day from their villages, crossing hills and rivers, fields and jungle areas. Thus it has indirectly contributed to their educational development.

3. Sixty seven per cent of the consignees said that the people have not

become wholly dependent on this programme. This is partly because the supply of food for distribution is sometimes irregular. However, in schools and boarding houses, such irregular supplies have caused considerable anxiety to administrators when faced with a crowd of expectant, hungry children.

4. Some "self help" elements have been apparently present in this programme. The people, by their contributions, and by the sale of containers, have met the transportation costs. This has been true in all, except eleven cases. Moreover, in the majority of these schemes although the priest has borne the overall responsibility, most of the actual work has been assumed and carried out by the parishioners themselves.

5. This programme has introduced new foods of nutritional value, e.g. wheat, milk powder, butter, oil, into the diet of the tribals, whose staple food is normally, solely rice and dhal. The Mahila Sangh and Grihini teachers have even taught people new ways of preparing their meals.

During their field tours, our research officers observed girls and boys drinking milk and eating rice mixed with bulgar wheat or chappaties with relish. Parish Priests report that even older people request special quotas of bulgar wheat because "it is filling."

It is interesting to note that in some cases boarders protested against the use of bulgar wheat in their rice. They said, "our-day-scholar friends tease us about it." However, when this practice was discontinued, they sheepishly asked for it once again. They had developed a taste for the new food without actually realizing it.

6. One of the major difficulties faced by parish priests in distributing food free is their inability to confine it to the poorest and most deserving sections of society; a practice which is often followed in many dioceses in India, where only poor parishioners are entitled to share. In Chotanagpur Parish priests complain that jealousy among the people is very marked and prevalent. It is impossible to exclude any particular family, and even the richer parishioners, even those that are somewhat materially better off, expect a share.

For this and other reasons, therefore, the change from free food distribution to "food for work" has been very welcome. Forty five per cent of those interviewed felt that it would definitely work, about 21 % expressed doubts. Only a few thought it would not work. Last year's success with "food for work" schemes has confirmed the majority's expectations. However, for certain categories of people, in certan areas, the "food for work" programmes cannot completely replace free food distribution.

Services for Children

A. Homes:

Homes for orphans and for destitute children are a common feature of

social welfare in its early stages. Later, this services is replaced by placements in foster homes, and by adoptions, since it is better to bring up children in a family environment. All children need individual care, attention and love. These are essential for their healthy emotional growth. Where it is lacking, it can seriously damage their personalities and give them feelings of inadequancy, insecurity or even rejection. Psychiatrists are of the opinion that even if children fail to adjust themselves properly in foster homes, and are moved into a series of them, it is still better than life in an orphanage. This theory though is not yet very widely accepted or subscribed to.

Their Nature and Work: Both types of services—orphanages and foster homes—have positive and negative features. A community is well off if both these services are available to needy children. Adopting children and placing them in foster homes, through social welfare agencies, is not common in India. Seven homes for children were studied in the course of this survey. Six were orphanages under the Ranchi Archdiocese. The first two were started in 1906 and 1907 respectively. The seventh home, in Singhbhum, had orphans and handicapped children together at the start. Presently, they specialise in services to the latter. The sponsorship, policy-making and financing of this institution are the responsibilities of a group of lay citizens, the services being provided by sisters.

Aims: The six homes referred to above, were started for children left destitute by the death of both parents, mostly non-Christians[1]. Christian children were usually cared for by their relatives[2]. Only in one case, the reason given for the establishment of the orphanage was, "to get money to support the convent."

Most of the sponsors mention religious motives also for establishing their institutions. The home for the handicapped was started to relieve the "suffering of children."

Services: The following Table shows when each home was started, the number of children in 1966, and the total number cared for since the inception of the institutions.

The orphans receive food, clothing and shelter. They are loved, cared for and educated. Some go to high school. Others learn a craft and earn their livelihood. The Sisters arrange marriages for the girls.

The home for the handicapped has both the mentally retarded and the physically handicapped. The latter receive a good education which prepares

1 *The Catholic Directory of India*, 1964, (Examiner Press Bombay-1), enumerates more orphanages. Several are closed because the children have grown up. Hostels for students are also listed under charitable institutions.

2 Enquiries made show that no orphanages are run by the G.E.L. or Anglican Church. The relatives assume responsibility for orphans. Some orphans in the care of the Anglican Church were brought up in St. Columba's Hospital, Hazaribagh.

TABLE I

Orphanages—Year Started, Number of Children in 1966 and the Total Number Served

Orphanages (Place)	Year Started	Children in 1966	Total served up to 1966
Khunti	1906	30	250
Tongo	1907	22	80
Naotoli	1925	34	500
Samtoli	1942	28	305
Mahugaon	1955	21	41
Ranchi	1961	97	481
Jamshedpur	1956	47	67
Total Number	7	279	1724

them for subsequent employment. Ordinarily, the physically handicapped are moved into an orphanage as soon as they can walk. The mentally retarded are helped to acquire skills which assist them in taking care of themselves. They also receive an education in their Montessori school, depending on their mental development.

One home serves unwed mothers also. At the time of our survey there were nine such institutions. The women who enter them, remain in the home until the baby is born. The baby may be adopted by families, or entrusted to the sisters. The girls are occupied with household tasks during the "period of waiting." This home also has a few destitute old ladies.

Most of the homes have had modest beginnings except those in urban areas. All, except one, has adequate space and a healthy environment.

Finances

Initial Expenses: Homes started several decades ago were unable to furnish details of their initial expenses. Those that were started in rural areas, several years ago, spent a few thousand rupees initially, but the two that were started in urban areas, in recent times, incurred heavy initial expenditure.

Five homes received land free of cost. Three obtained buildings free, while four received free furniture. These gifts came from local sources.

The need for equipment, generally received little attention. Five institutions made no investments under this head. Further, no expenses were incurred for training or planning.

More than 58 per cent of the total expenses incurred came from charitable agencies and kind friends overseas. The sponsors raised more than 38% of their capital costs, through their own efforts. Less than 4% came from the Government.

Recurring Expenses: Only five of the seven homes were able to furnish us with any relevant details about their recurring expenditure. The (Expenditure) main items under this head, appear to be under food, clothing, maintenance, transportation and education. Most of the sponsors have their own schools. Only one sends children to boarding houses and pays part of their expenses.

Donor agencies and well-wishers overseas meet about a fourth of this expenditure, while the sponsors contribute and collect more than half their own recurring costs. Government meets about one tenth of the costs, while the rest comes from anonymous donations and beneficiaries.

Staff and Administration: There are three different categories of personnel employed: 1. Administrative, i.e. for direction and supervision. 2. Service, i.e. those directly engaged in looking after the children, 3. Subordinates, i.e. those engaged in cleaning, maintenance or other tasks

The Table below indicates the number and categories of staff involved in the running of these institutions

TABLE II

Various Categories of Staff

Institutions (Place)	Administrative		Service		Subordinate		Citizenship		Total Number
	Paid	Voluntary	Paid	Voluntary	Paid	Voluntary	Indian	Foreign Born	
Khunti	1	—	2	—	—	—	3	—	3
Tongo	—	1	2	—	—	—	2	1	3
Naotoli	—	1	—	1	—	—	2	—	2
Samtoli	—	1	2	—	—	—	2	1	3
Mahugaon	—	1	2	—	—	—	3	—	3
Ranchi	—	4	11	—	3	—	18	—	18
Jamshedpur	—	3	10	—	3	—	15	1	16
Total	1	11=12	29	1=30	6=6	—	45	3=48	48

1. All the persons on the administrative level are women. All, except one, are from religious orders. Only one is a full-time paid employee. A little less than half of the rest are on full-time employment on the job. Only 25% of them are foreign born. One third of them are tribals All have experience in this type of work but no professional training as such in social work. A few are trained nurses.

2. In the service cadre all are Indian born. The majority are women. Sixty per cent are paid on a full-time basis. Most of the others work part-time, or on a voluntary basis.

Many have had no prior education to prepare them for the job, a few have had some general education or technical training as dais.

tives that will make their holidays both happy and fruitful. One way of attaining this is to send the children on Holiday Camps.

Their Nature and Work: Summer holiday camps were started in Chotanagpur as far back as 1959. These camps were originally for only a weeks duration, and were meant only for altar boys. Gradually, however, the number swelled to several hundreds. The camps were planned to give children a care-free time, in healthy surroundings, with adequate food.

In 1967, the Ranchi parish conducted separate camps for girls and boys. 106 girls were cared for by the Ursuline Sisters. 400 boys went to a tea estate in Sahaya, near a river in Ranchi District, in batches of 185, 72 and 125. They belonged to the age group of 12-17 years. The duration of the camps ranged from 12 days to 4 weeks.

The camps are generally meant to benefit poor children, although allowances are made for a few who can afford all the expenses. However, every poor child contributed something, and more than a third of the boys were of non-Christian denominations.

Staff and Administration: The girls' camps was staffed by two Indian Sisters and some students. The boys' camp had a foreign born priest as Director, but the rest of the staff (6 Seminarians, 2 college and 2 high school students for the first batch) were all Indians, most of them tribals. Others were from Nepal and Kerala. The staff gave their services free and also paid for food. Medical care was provided once a week by a team from St. Barnabas' Hospital, sponsored by the Anglicans.

Finances: The expences of the boys' camp were met by contributions from different sources: 5%, came from the children themselves in cash, 12%, was received in kind, about 16.5%, came from the Archdiocese, and an equal amount from the sponsors. Misereor also contributed a substantial amount while the rest was collected from friends and benefactors.

Evaluation

1. These holiday camps are looked forward to eagerly by the children. They have regular meals, the companionship of their peers and the friendship of the staff. They also provide the organizers with a chance to introduce the children to a well-regulated life, to religious practices, and healthy open-air recreation.

2. When campers were asked what they liked most about their holiday, they said, "fishing, swimming, the food and companions to play with." The daily routine apparently varied greatly. This kept alive the interest of the participants all the time.

3. The director felt that two weeks in the countryside with regular

meals gave the children a new "zest for life." Their families were relieved of the anxiety "of having them at home doing nothing and getting into *mischief.*"

4. The fresh country air, and the constant companionship of friends and proper guidance from responsible adults "did them a world of good."

5. Holiday camps could also be organized for the entire family, instead of isolating only the children. Poor parents, who never take a holiday, would welcome a change from household chores and worries.

Adult Education Programme for Women

There is great wisdom in the simple old adage, "the hand that rocks the cradle rules the world". Even in India, where the sexes are severly segregated by society, women are today called upon to assume tremendous responsibilities in the home, in government or in world organizations.

Nevertheless, the fact still remains that women in this country are generally neglected. This is principally because customs have existed, in India, that have stifled their growth. Therefore, socially speaking, women have remained retarded.

In some parts of India, however, women have been more privileged than in others. The Christian Churches in Chotanagpur, as elsewhere, have provided for their development through educational institutions especially designed to meet their needs. The hostels for college women, run by the Christian Churches, are but one example. These institutions enable women and girls to take fuller advantage of scholarships offered them by the government.

The necessity to "officiate for the mother" in caring and looking after young ones in the family has prevented many a daughter from acquiring an education. Thus many young girls develop a feeling of inadequacy and are unable to carry out their out their new functions in modern society.

To provide opportunities for the fuller development of younger women, the Gossner Evangelical Lutheran Church started a training course for women as far back as 1939 The Archdiocese of Ranchi now also has an informal programme called the Chotanagpur Catholic Mahila Sangh, and a more formal one opened compratively recently known as the Grihini Programme[1]. Both these training courses are designed for women's development.

1 *The Grihini Course in the Diocese of Raigarh-Ambikapur had its impact on the* programme of this Archdiocese.

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The camps are generally meant to benefit poor children, although allowances are made for a few who can afford all the expenses. However, every poor child contributed something, and more than a third of the boys were of non-Christian denominations.

Staff and Administration: The girls' camps was staffed by two Indian Sisters and some students. The boys' camp had a foreign born priest as Director, but the rest of the staff (6 Seminarians, 2 college and 2 high school students for the first batch) were all Indians, most of them tribals. Others were from Nepal and Kerala. The staff gave their services free and also paid for food. Medical care was provided once a week by a team from St. Barnabas' Hospital, sponsored by the Anglicans.

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1. These holiday camps are looked forward to eagerly by the children. They have regular meals, the companionship of their peers and the friendship of the staff. They also provide the organizers with a chance to introduce the children to a well-regulated life, to religious practices, and healthy open-air recreation.

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Nevertheless, the fact still remains that women in this country are generally neglected. This is principally because customs have existed, in India, that have stifled their growth. Therefore, socially speaking, women have remained retarded.

In some parts of India, however, women have been more privileged than in others. The Christian Churches in Chotanagpur, as elsewhere, have provided for their development through educational institutions especially designed to meet their needs. The hostels for college women, run by the Christian Churches, are but one example. These institutions enable women and girls to take fuller advantage of scholarships offered them by the government.

The necessity to "officiate for the mother" in caring and looking after young ones in the family has prevented many a daughter from acquiring an education. Thus many young girls develop a feeling of inadequacy and are unable to carry out their out their new functions in modern society.

To provide opportunities for the fuller development of younger women the Gossner Evangelical Lutheran Church started a training course for women as far back as [illegible]. The Archdiocese of Ranchi, [illegible] an informal programme called the Chotanagpur Catholic [illegible] and a more formal one opened comparatively recently known as the [illegible] Programme[1]. Both these training programmes are designed for women's development.

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1 [illegible]

6. All the grihinis unanimously affirmed that the course was useful. Reasons stated varied as under:—

1.	It is an essential training for housewives	51.9%
2.	It is necessary for learning household work	25.3%
3.	'Being educated' is an important benefit derived from the training	22.8%
	Total—	100.0%

Arithmetic and Hindi were both considered the least useful subjects by 21.7% and 11.9% of the Grihinis respectively It does not follow, however, that this is true in real life. Although these subjects may be foreign to them and unrelated, at the time, to their tribal existence in the villages, and they also have difficulty in fully understanding them, it appears that when they are moved out of their local communities, they do actually find Hindi useful to them. The importance of Arithmetic usually becomes more apparent to them, when they have to balance the budget in their new homes, or have to sell farm produce, in the market, on behalf of their husbands.

7. Some of the difficulties encountered are given below:

"It is difficult to grasp the subject matter" said 34% of them. While 15% found fees a major hurdle. Another 15% found that the food and lodging were not entirely to their liking.

8. In every batch, it is usual for a few students to drop out of the course. Some centres have trouble finding the minimum number of students required to make the course a success. Asked why more girls do not attend these courses, the following reasons were advanced by the grihinis:

	Reasons	**Percentages**
1.	Financial difficulties	39.5%
2.	Parents wants girls to work at home	31.1%
3.	Unaware of the existance and utility of these courses	14.3%
4.	Girls do not want it	4.2%
5.	Centres are too far from home	2.5%
6.	Married mothers cannot leave their babies	1.8%
7.	Course is offered at an inconvenient time	0.8%
8.	Laziness	0.8%
9.	No reasons given	5.0%
	Total	100%

9. The grihinis examined about their source of information for the course revealed that the parish staff namely the parish priest, munshi, and catachists, carried the message to more than half of them (52%). The religious sisters and members of the family informed about 17% of them.

It was also observed that parents wielded the greatest influence in sending grihinis for the course (48.8%). While sisters and other members of the family were instrumental in influencing 25.6% of them. Parish staff urged another 13.4% to attend the course, while 12.2% went of their own accord.

B. The second study conducted in May, 1967, confirmed many of the findings already in our possession, e.g. their difficulty with Hindi and arithmetic[1]. From the interview of sixty-two grihinis it was ascertained that:–

a. Characterstics of the girls were:

1. All the students in the grihini schools were tribals. Of those interviewed 10% were Kharias, 28% Mundas, and 62% Oraons. The average age of the girls was 18. But none of them really knew their correct age. (The baptismal registers had to be consulted to confirm this.)

2. The table below shows the general level of education of the grihini students interviewed.

Level of Education	Illiterate	Lower Primary	Upper Primary	Middle School	High School
Percentage	42%	20%	15%	20%	3%

The figures given above do not necessarily mean, however, that the girls interviewed had all completed their school grades at the levels shown. Most of them had attended school for only a short while.

3. The girls who had attended school were more interested in the training than those who were completely illiterate. The latter found it difficult to abandon traditional attitudes and practices, especially when they were not able to foresee the benefits of such a course.

4. Once the girls were brought into the programme they learned to

1. Sr. M. Adalene, "Grihini Schools: An Experiment in Adult Education", *Social Action*, Vol. 18 No. 1. Jan-Feb. 1968. Pages 56-64. Indian Social Institute, New Delhi-16. Written for the All-Chotanagpur Seminar under the direction of the Chotanagpur Project Staff.

appreciate the course. All the students interviewed said that the course appealed to them. The initial step, however, was not easy for them to take. The had many difficulties in the school, especially in the beginning, though a great majority of them eventually overcame them. Once they actually realised the usefulness of the course, however, they were soon ready to settle down and to take full advantage of the opportunities offered by it.

5. The grihinis agreed unanimously that the course was very useful, indeed, absolutely necessary for all women interested in the betterment of family life. They were proud of the education they were receiving, and said that they were happy merely to have the opportunity of attending a school and being educated.

6. Among the students interviewed, no one was unhappy in the school. Many of them stated that the common life they shared, during the course, contributed vastly to their happiness. To derive the maximum benefits from their training, they felt it was necessary to remain in boarding.

b. Problems at School

1. Sixty per cent of the students found the syllabus too vast and too difficult. Some of the teachers also said that it was difficult to cover the prescribed syllabus within a limited period of five months.

2. Most of the tribal communities were caught up, as a whole, in a struggle for daily sustenance and the minimum requirements of life. As such, they were not much concerned about the future. The girls were needed more for work at home. Therefore, with most of them, it was a question of sacrificing something valuable now, for something of intangible value later.

3. Parents were unwilling to send their daughters to the grihini school, because the girls would soon marry and enter other families. Consequently, they felt that their own family would not derive any profit from the training received. This attitude is still widely prevalent and creates difficulties for many girls wishing to take advantage of the course.

4. About 50% of the students said that they had difficulty with regard to the payment of fees. The famine in Bihar during the past year intensified this problem.

5. It is not always easy to understand or appreciate what it means to simple village girls to be suddenly removed from their free and simple way of life, to a completely different environment. They are usually unable to understand the necessity for following a set

routine. Even where they do, they find it difficult to adjust themselves to regular life in the hostel. Though the majority of them were used to a hard way of life, therefore, to lead a disciplineed one appeared to be quite a different matter. Consequently, forty per cent of the students suffered from adjustment problems.

6. The day scholars had yet other dıfficuties. They had to undertake domestic work both before and after school hours, and consequently had no time for study. In class, they found it difficult to fully concentrate since they were already fatigued from walking long distances. Only in one school were day students admıtted in one course, because of famıne conditions.

7. Yet another dıfficulty the students faced in school was the language problem. Each tribal community havıng its on language, the girls encountered many dıfficulties not only in communicating amongst themselves, but also in following classes which were held in Hindı. By the time they were able to follow the Hindi used, the course usually came to an end. Sixty five per cent of the students advanced this as one of their major problems.

8. There were no separate classes for the literate and illiterate girls. This had its merits and dısadvantages. While the lıterates helped the others, it was difficult for the teachers to ascertain whether or not all the participants had followed her. The illiterates were afraid to admıt that they had not understood a particular lesson, and they usually suffered from feelıngs of inferiority because their companions excelled them ın many ways. In this respect, the literate girls also suffered, since they could have derived more from an intensıfied course.

9. Most of the students found study itself very hard, particularly since their hands were not trained for fine embroidery and other delicate crafts. They found it difficult to hold a pen or to thread a needle. When questioned about what they found to be most difficult in the whole course, their first answer was "we do not know anything." Forty-two per cent had difficulty with regard to food. They complained that in the school, they could not always get the same food as they were used to at home. Some of them did not like the style of cooking, others found difficulty with the timings of meals.

c. Significant Change

The teachers said that the task of educating illiterate girls needed great patience on their part, though it gave them immense satisfaction to observe the marvellous change they were able to bring about in the students. Back in their village, the students usually kept themselves and their homes clean and tidy. Their children were looked after very well, were bathed regu-

larly and dressed neatly. Many of them sewed their own clothes, ev though they had not held a needle and thread before they had taken t course. Again, although most of the girls always ran away when th saw an outsider, they now come forward and talked to them without er barrassment. In fact, they managed their home affairs with greater re ponsibility when their parents and relatives allowed them to do so. Tl trained girls themselves stated that they understood their roles as wiv better and, therefore, would not run back to their mothers homes as the elder sisters had done.

Stimulating qualities of leadership in them was yet a further aspect the training. At any important feast or celebration in the village, the girls were among the recognised women leaders of the village.

Finances

A. The Initial Expenses for this programme were:

1. Training: The staff, two per centre, were sent for a short perio to Gholeng before the programme started. The travel, book and fees for this cost each centre on an average Rs. 200/–.

2. Buildings: When the programme began, one school showed a expense of Rs. 1,000/– for maintenance of old buildings. Tw others held classes in a high school and a parish hall.

3. Equipment: The most expensive items were sewing machines an cooking utensils. In one instance the convent loaned the machines In another, furniture and equipment meant for the high school were used. Four schools spent Rs. 1,000/– each, while others spent Rs. 764/– and Rs. 500/– respectively. Only two schools showed expenses for utensils: Rs. 300/- and Rs. 350/- respectively.

B. Recurring Expenses

1. These consisted primarily of the salary of the lay teacher at the rate of Rs. 50/– a month, for the period the school was in session. In one school where there were three lay teachers, it was at the rate of Rs. 95/– a month. This school offered two courses a year. One school having two sisters on the staff did not incur this expense at all.

2. The other items were food and materials for sewing garments. The cost of the cloth averaged Rs. 500/– per batch of 40 students. The expenses was met by the student fees of Rs. 3/– per month.

3. Foodstuffs for meals and cooking classes was yet another item of recurring expenditure. The grihinis themselves contributed 10 seers of rice and 1 seer of dal per month. One Sister observed

that this was enough for one daily meal, per girl, per month. American supplies made available through Catholic Charities made up the deficit.

The initial expenses were usually met through donations, i.e. Misereor and Entraide et Fraternite. The money for the buildings and some equipment came from Misereor. Friends of the Archdiocese and missionaries also sent smaller donations.

The Chotanagpur Catholic Cooperative Society, through its development fund, made available Rs 500/- to each School for every course. This helped the schools to pay the salaries of the lay teachers and part of the cost for the garments. Miscellaneous expenses were met by the parish and convent.

Evaluation

1. In the Ranchi Archidiocese, though the courses were needed in the centres in which they were started, their distribution was rather uneven. Thus while the archdiocese covers all districts, seven of the eight schools planned were placed in the Ranchi district, only one in Palamau district, and none in Hazaribagh district. The need for these schools in the latter two districts is greater, although the Christian population is smaller. Our own research and experience, during the famine in Palamau and Hazaribagh in 1967, showed that the people there are educationally, socially and economically worse off than the people in Ranchi district. These two districts also have a high percentage of Harijans and people of scheduled castes who are generally less advanced than the others. Such programmes also need to be offered in Santal parganas district, where there is a very high percentage of tribal people.

2. The standard of living, maintained by the various schools, is in keeping with the standards in the community—the girls eat sitting on the floor in the open courtyard (dusty at times), they sleep on the floor, and roll up their beddings in the morning, putting them aside to make room for classes. The girls are frequently made to work for the convent or parish by carrying bricks, etc. On the whole, the standard of living in the schools is slightly higher than that of the families from which the girls come, but it is often not "good enough." The grihini schools must be the "standard setters" and the catalysts for introducing social changes in the living and health standards of the rural people. So far, the new buildings set up at the grihini centres have separate rooms for classes, dining and sleeping. Sanitary facilities are also provided. Gradually, the centres are also acquiring better equipment.

3. The schools run by religious orders of foreign origin, usually maintain better standards than those run by poor religious orders of Indian origin.

4. Sometimes, when a group of students exceeds forty, in a particula course, the staff is not concurrently increased. This does not permi teachers to give individual attention to the students. In many cases too the sister-in-charge has other responsibilities in the convent or parish schoo attached and, at times, therefore, there is a tendency to neglect the grihinis

5. This programme is run very economically. One could almos add that it is run "on a shoe-string" budget. The recurring expenses ar met by the girls, the Chotanagpur Cooperative Society and the sponsors Help from Misereor and other donors pays for initial expenses only.

6. A similar programme in Raigarh and Ambikapur gives stipend to the girls as an added incentive to attend the course. The Tabita Bibl and Bunayadi Training School also provides Rs. 40/- per mensem as a stipend for each trainee. The students in these two programmes are no expected to make a contribution. This, of course, immediately makes fo an increased budget.

Very recently information has been received that the Government of India, through the Central Social Welfare Board, is planning similar short courses for rural girls. Here, too, stipends will be given as incentives.

7. In Ranchi, it would be a great help if the poorest girls, who are in great need of a course of this type could be given stipends without making the other girls jealous of them. Possibilities of procuring Government aid for the poor girls could, and should, also be explored. The girls who can afford to contribute foodstuffs and fees should always be encouraged to do so.

8. The Coordinating Committee is an asset to the programme. Through it, contact between schools is maintained during the half-yearly meetings. Constructive changes and new elements are easily introduced through the authority of this Committee.

9. A four day refresher course for all the teachers was organised in 1967. This was a great help to the teachers themselves particularly in in learning new methods of teaching, exchanging ideas and discussing common problems. There is need for such refresher courses to be conducted periodically.

10. Five of the nine centres have girls' schools in the parish. So far, however there is little contact between the centres and these schools or with other types of educational institutions or craft centres.

It is reported that in many centres in Raigarh and Ambikapur high school students take up the responsibility of teaching the grihinis on a person-to-person basis.

11. No contact is maintained by the grihini school with the govern-

ment at the block level.

12. Most of the administrators consider the courses successful. Two courses were "not so successful" in one case due to late admissions and in the other because the timing conflicted with the harvesting season.

13 All administrators claimed that the students because of the training received were equippeed to face life better than before. The reasons stated were:

a) Students acquired useful knowledge and skills.
b) They developed self-confidence.
c) They had better social interaction.

14. Factors that contributed to the success were:

i) Efficient administration.
ii) Devotion of the staff to their duties, and
iii) The hardwork put in by the students themselves.

15. Due to their involvement in the grihini course, several religious orders in north India have realized the importance of home economics training for purposes of teaching, as well as for improving the housekeeping standards in their own convents.

16. The fact that the grihinis are in great demand, as wives, indicates that the aims of the programme are being fulfilled. Some of the girls find employment as domestics. Gradually the people have begun to realize the value of the course.

17. One of the main strengths of this programme is the fact that the Archbishop and some of the ablest priests and religious support it. This ensures its continuity, its progress and development.

Recommendations

As the need for marriage preparation becomes felt more and more, the aims of the present programmes should be broadened as follows.

A. Aims

1. To cover every illiterate girl and boy who plan marriage.

2. To provide opportunities to the educated to prepare well for marriage. There should be at least one school for post-matrics.

3. In order to include men or couples in this type of adult education programme, the name of this programme will need to be

changed. At present, the name 'grihini' implies that preparation for marriage is needed only for girls. If the programme is continued, as it is now, in a few years there will be a grave imbalance in the community—with the women asserting themselves—and their illiterate husbands struggling with the problem of keeping "the women in their traditional place."

Seeds of discord will be sown on the marriage day itself, when the man, who is considered the head of the household, puts a thumb impression on the marriage register while the grihini girl proudly signs her name.

B. Methods

To achieve these aims the following measures should be considered and, where possible, implemented:

1. The present programme should be continued and similar ones introduced based on agriculture, or on an occupation, for young men.

2. Some part of the programme should be offered for young couples, just before or after marriage. Every parish which currently holds marriage classes for men and women should introduce other elements besides religion into these classes. This would foster a better understanding, among men and women, of each other's roles.

3. Advantage should be taken of the fact that several religious institutions in Bihar employ between 10 to 30 girls or boys for domestic help. The authorities could be prevailed upon to make the girls undergo the course during their stay with them.

4. In places like the catechist school at Tongo, where families live together for a period of two years, a course spread over this period could be organized. A trained women could be in full-time charge of the programme for the wives. The catechists, too, could have training in other subjects besides religion. Since the families live on the premises of the school, recruiting would be no problem. The expenses would also be minimal.

5. The educational levels of the teachers involved in these programmes must gradually be raised by various means; encouraging them to finish high school, organizing refresher courses, or sending them on educational trips, etc. to broaden their outlook.

6. Standardization and uniformity in training will ensure good results and efficiency, and further experimentation with syllabus, buildings, specializations, etc, will enrich the programme and make it more suitable to varying needs.

7. Instead of telescoping too much into the course, certain subjects could be treated more intensively in some schools. Others could offer courses for a year or two.

8. A grihini school, on a higher level, must be established for literate girls, with a syllabus to suit their background. Otherwise they may not find the present course satisfying and challenging enough for their level of development.

9. High school and college students from the villages must be more directly involved in imparting their knowledge to illiterate youth. This will not only benefit the grihinis, but will foster in the students social service consciousness or a desire to help others.

10. An inspectress-consultant, preferably a well educated lay woman, should be appointed to visit the schools and help the teachers with their difficulties. This will also help to ensure that the grihinis derive maximum benefit from the course. This could be done on a volunteer basis. In the course of our recent study, it has been pointed out that, in some convents, there is a tendency to divert foodstuffs provided for the grihinis to other people. At other times, parish priests and convents take grihinis from their classes and make them do work which is not of direct benefit or application to the girls. These are both practices which need to be discouraged.

    Some methods also need to be evolved to follow up the students, and to assist them practise what they learn at school.

11. Active lay participation is absent in this programme. The lay parish organizations support this programme and help in the recruiting of the girls, but beyond this they do nothing more. The lay teachers, except in one school, are a kind of "appendage" to the sister.

    Lay people who are professionals (doctors, nurses, teachers), and who have made a success of marriage and parenthood, should be invited to speak to the girls. It is essential that young people have models to pattern their daily lives on. A few lay people should be members of the Coordinating Committee and take an active part fashioning future policy. Personnel connected with institutions related to the syllabus, for example, the Agricultural Training Centre at Namkum, should be drawn into the programme to enrich it.

12. Care should be taken to see that the money invested in the buildings, is used to the fullest and best advantage. Those schools which offer only a single course, use the building for merely five months in the year. Adult education programmes for men and

women should be so planned that the maximum use is made of the good facilities available.

Conclusion

The grihini programme of the Ranchi Archdiocese is something of which the initiators can justly be proud. During the past year, it has become known in other parts of India and the programme has attracted people to Ranchi who want greater and more detailed information about it.

Articles on these programmes have appeared in Christian as well as secular papers, and educators from all parts of India, at times from America and Europe, have written and asked for the syllabus. Recently the Social Welfare Officer from the American Embassy in Delhi, and the Social Welfare Adviser, Government of India, have shown a great deal of interest in it. It is likely that they may help in introducing the programme, on a wider scale, in different parts of India. Should this happen, the Church in Chotanagpur will have played a leading role in stimulating a new programme of this type in the country.

This is a programme which, today, urgently needs financial and moral support, particularly in areas where anti-feminist trends are strong. The Archdiocese of Ranchi could play a leading role in introducing it to other dioceses of India for it is a product they can proudly export.

Night Shelters

The Physical Set-Up

A. For Men and Families

For the last forty years a "Dehra" or night shelter has been provided by the Chotanagpur Cooperative Society for members who come to Ranchi on business. Groups of labourers going to and from the tea gardens, or those that are on contract labour, can spend a night or two there before they catch a bus or a train to their destination.

Many poor people who have lost their houses, are homeless, or are in transit, also spend a night or two in the Dehra until they find a job, move elsewhere or find permanent housing.

The "Dehra" was originally located in the centre of the city, though it is now a little away from it, in the compound of the Society's headquarters. It consists of a large hall, almost entirely open on one side. The people cook their food in the yard if they so desire. Sanitary facilities are also provided.

During certain seasons, from 40 to 50 people take advantage of this

facility every night. At other times between 10-15 people use it for sleeping. This service is provided free.

B. For Women

Girls and single women, who come to the city of Ranchi (individually or in groups) in search of employment, for examinations or excursions, are usually housed in one of the convents in the city. If they stay for a few days or come in groups, they bring along the foodstuffs they need and the fire-wood to cook with. They usually bring their bedding also. In this way hundreds of girls are provided with shelter, each year, free of charge.

Evaluation

1. The night shelter or "Dehra" provides a valuable service to people who literally do not have a "roof over their heads" during their stay in Ranchi. Hundreds of them—both men and women—make use of it every year.

2. It is operated merely for those with a very low standard of living. Only the bare floor is available. The entrance to it is open So the people are not protected from the rains during the monsoons or from the cold during the winter. Sometimes, a part of it is used for storing wood etc.

3. There is absolutely no privacy for the changing of clothes or for sleeping etc.

4. No cooking facilities as such are provided and only space in the open is available. Undoubtedly this is something that the tribals are used to wherever they go. It saves them money. A small kitchnette protected from the elements, however, would be of great help to the people.

5. The women, if they are by themselves, have no place to turn for shelter, except the convents. They can approach the sisters only if they know them. A shelter for them, run by a lay organization, with decent living conditions, would be very useful to hundreds of Christian and non-Christian girls who are unaware of convents. Such shelters are presently needed in most urban areas.

Workrooms for Women

Most of the tribal people of Chotanagpur are farmers with small land holdings. During the year, when the farm work has been completed, they supplement their income with non-agricultural pursuits. In many cases, however, the income earned by the head of the family in working on the farm, or in the urban areas, is not enough. In such instances, the women also have to seek employment.

In Chotanagpur illiterate women who seek employment have few alternatives from which to choose. They generally work as domestic servants with middle or upper class families, or help in construction work. The latter type of work is physically strenuous and is not free from moral dangers. Therefore, early in this century, it was felt that the women of Chotanagpur had to be provided with new and alternative forms of employment.

Two workrooms were, therefore set-up. One, known as the S.P.G. Lace and Needle Workroom, by the Anglican Church, in the compound of the S.P.G. Mission; the other, by the Ursuline Sisters.

In both these establishments, tribal women were introduced to lace-making and to embroidery on silk and linen materials. The embroidery done on Church vestments, clothing, bed and table linen was offered for sale. At first the workers chosen were widows, women with ailing husbands, or women who had been abandoned by their husbands. Subsequently, girls who had finished with or had dropped out of high school, and were waiting to be married also began to seek employment in these workrooms.

A. The Ursuline Workroom, Ranchi

The Ursuline Sisters opened their lace school in 1904 with four women. They were accommodated on the school verandah in the convent compound on Purulia Road, and the headmistress of the school acted as supervisor. Later, the workroom got its own premises, also in the compound of the Ursuline Convent. This was necessary because the Europeans in and around Ranchi—and much further afield—instantly recognised and appreciated the very high standard of work and materials supplied by the workrooms. Orders began to flow in, and the number of workers increased. The embroidered household linen produced at this workroom soon became famous. Consequently the work force was further increased, and since 1950, they have averaged 200 workers or more.

In 1938, an order for the first saree was received and, since the customers are nearly all Indians now, the type of work carried out has entirely changed. The skill of lace-making and fine linen embroidery is gradually being lost, but orders for embroidered sarees continue to pour in. There are, presently, orders in the books for a year and a half ahead.

Four other workrooms have been started in Ranchi District: at Khunti, Tongo, Rengarih and Noatoli by the Ursuline Sisters. These receive the surplus work from the Ranchi Workroom.

In 1964, the Ursuline Sisters appealed to Misereor for funds to renew the roof of the workroom and to replace the wooden windows that were ant-eaten. Later, with aid received also from other donor agencies, a large hall was built on the second floor. At Tongo the workroom is cur-

rently very congested. Donations have, however, been received for a new building.

Its Nature and Work: The Ursuline Workroom in Ranchi is centrally located in clean and congenial surroundings. The building consists of two large, well-lighted rooms with verandahs. There is an Office-cum-showroom where visitors view the work, and customers place their orders. There is also a room for storage.

The women sit on the floor and work on wooden embroidery frames. Their working hours are from 9 30 a.m. to 4.30 p.m. with a break for lunch. Most of the women have to look after their household duties, their husbands and children. Therefore, they seldom work full-time. They are paid for the work done, and some flexibility, in coming to and leaving work, is permitted.

Saree materials are provided by the customers themselves, while the silk thread and other materials used are purchased by the sisters

Attached to this workroom, is a creche and a Montessori school where workers' children can spend the day. Small babies, who are not a disturbance, are permitted to remain by their mothers' side.

Beneficiaries and Benefits: The workroom was started in response to an economic need. It gives poor and under-nourished women an opportunity to earn a living.

At the time of our enquiry, 200 women were employed at the Lace School. Our study revealed that 105 of these, or about 52.5% of them, had only received primary education, while the rest had education below the seventh grade. All the women were tribals. Very few were non-Catholic.

Almost 75% of the workers are drawn from the average people in the area, as far as their economic status is concerned Of the remaining 25%, half are below average and half above it.

Besides salaries all the workers receive other benefits:

1. Montessori schooling and creche for the children at nominal rates.

2. Simple medicines for the workers and their children.

3. Food supplies made available by the Catholic Relief Services, U.S.A., through the Food Distribution Programme of Catholic Charities.

4. Counselling on personal and family problems from the sisters.

Classification of Workers: The workers are classified under 3 different categories: 1. Beginners, 2. Apprentices, 3. Experienced workers.

1. The beginners spend six months, on an average, learning the work. They earn little or nothing at this stage. Therefore, more than 60% of them leave and seek alternative employment.

   The beginners work on handkerchiefs and frocks. Most of them are teenagers. As they improve in their skills, they begin to earn a little.

2. The apprentices have a minimum of 3 years service. The majority of the present apprentices, however, remain in this category longer, since they are unable to master the techniques of work on delicate materials.

3. The experienced workers have many years of service to their credit. Some of them have worked for more than 30 years. Last year, one of them in particular, celebrated her diamond jubilee of service to this workroom.

Staff and Administration: A staff of twelve persons is employed to run the workroom. Five of these are full-time in the administrative cadre. All are religious, three of whom are Indians. Five lay women do the physical work, for example, the washing and the ironing. Most of them are Indian-born and of tribal origin. The only men on the staff are the peon and the watchman.

The workers are paid on a weekly basis, calculated on piece work rates. The average daily earnings are Rs. 1.50, ranging from Re. 1/- to Rs. 5/-. The average monthly earnings are Rs. 35/- ranging from Rs. 20 to Rs. 90/-. On completion of a large or important piece of work, they often receive a small additional bonus.

Problems

1. Absenteeism is very prevalent here, as in other similar production ventures. Mothers stay away from work at home because of illness in the family or to entertain visitors, etc.

2. The rural pace of life is maintained even when tribals live and work in the city. Generally these people are very slow and easy going and often take their time over the most simple routine work. This causes a good deal of frustration amongst the administrators. Very few workers, therefore, work to full capacity.

3. A steady flow of workers is not assured since many beginners still leave and seek alternative employment as domestics or construction workers. This problem could be overcome, to some extent, with a system of providing stipends for beginners, by way of an incentive.

Finances: In recent years the major expenses incurred have been in remodelling and extending the buildings of the workroom. The necessary finances come mostly from foreign aid-giving agencies and other benefactors, though the sponsors themselves contributed towards the initial investment.

The recurring expenses are met by sales of work undertaken and completed. The most important items of expenditure are the workers' salaries—70% and the cost of materials—over 10%.

The meagre profits—from 10 to 12% of the income—are used for the charities supported by the Ursuline Society of Ranchi.

Evaluation

1. The workroom has achieved its objective in providing employment for needy women in clean and pleasant surroundings. This type of work is welcome to persons who cannot stand the strain of hard, physical or manual work. Two hundred or more women are gainfully occupied; many would otherwise waste their time. Regular employment raises their living standard and their children go to school. The workroom's contact with its subsidiary ones, remote areas, provides a chance for rural women also to benefit from the reputation of the present organisation in Ranchi.

2. The flexibility with which the workroom has gradually changed from lace-making to sarees embroidery, has enabled the undertaking to flourish. Otherwise it would have had to be closed years ago. The work produced is of a very high standard and therefore, orders pour in from satisfied customers.

3. Although there is some collaboration with private ventures, there is no collaboration with the government at all. Nor do there appear to be any plans for such collaboration in the future. It is learned that the government did once offer financial assistance to this institution, on the understanding that the embroidery designs were changed to something more of an Indian style. It was felt, however, that the present clientele would not appreciate such a change-over and so the matter was not pursued. There was also a fear of eventual government control.

4. There could be greater experimentation with designs. For example, being located in the heart of Chotanagpur, tribal landscapes or similar motifs could give special flavour and a local bias to the work done. This is being done very successfully in other workrooms.

5. The workers are given encouragement to earn more if they work harder. Since most of them are very faithful, and stay on for many years, it would be worthwhile helping them assume more and more responsibility gradually. Some outstanding ones could be encouraged to set up little workrooms or tailoring shops of their own. Others could be persu-

Classification of Workers: The workers are classified under 3 different categories: 1. Beginners, 2. Apprentices, 3. Experienced workers.

1. The beginners spend six months, on an average, learning the work. They earn little or nothing at this stage. Therefore, more than 60% of them leave and seek alternative employment.

   The beginners work on handkerchiefs and frocks. Most of them are teenagers. As they improve in their skills, they begin to earn a little.

2. The apprentices have a minimum of 3 years service. The majority of the present apprentices, however, remain in this category longer, since they are unable to master the techniques of work on delicate materials.

3. The experienced workers have many years of service to their credit. Some of them have worked for more than 30 years. Last year, one of them in particular, celebrated her diamond jubilee of service to this workroom.

Staff and Administration: A staff of twelve persons is employed to run the workroom. Five of these are full-time in the administrative cadre. All are religious, three of whom are Indians. Five lay women do the physical work, for example, the washing and the ironing. Most of them are Indian-born and of tribal origin. The only men on the staff are the peon and the watchman.

The workers are paid on a weekly basis, calculated on piece work rates. The average daily earnings are Rs. 1.50, ranging from Re. 1/- to Rs. 5/-. The average monthly earnings are Rs. 35/- ranging from Rs. 20 to Rs. 90/-. On completion of a large or important piece of work, they often receive a small additional bonus.

Problems

1. Absenteeism is very prevalent here, as in other similar production ventures. Mothers stay away from work at home because of illness in the family or to entertain visitors, etc.

2. The rural pace of life is maintained even when tribals live and work in the city. Generally these people are very slow and easy going and often take their time over the most simple routine work. This causes a good deal of frustration amongst the administrators. Very few workers, therefore, work to full capacity.

3. A steady flow of workers is not assured since many beginners still leave and seek alternative employment as domestics or construction workers. This problem could be overcome, to some extent, with a system of providing stipends for beginners, by way of an incentive.

money, do not provide adequate financial returns. The members are not in a position to compete in the open market, because of their physical handicaps. The Chotanagpur Project has, therefore, classified this effort as a social welfare service of a non-profit making denomination and, as such, it may be termed as being a success. This success may be attributed to the following reasons:

a) *Orders received from firms and the comparatively easy availability of materials;*

b) The members have the necessary skills or acquire them quickly;

c) The organizational set-up, the community spirit present, and the time devoted freely to it by the director.

7. The community benefits from the articles produced and the handicapped are taken off the streets. The members are often a source of inspiration to the able-bodied through their industry.

8. Active participation of the members, in this Cooperative, is both expected and encouraged. This is a rare occurrence in projects sponsored by the Catholic Church and this Cooperative highlights the fact that, if handicapped people are able to take part in the policy and decision-making of a project, workers in workrooms, presses, hospitals, etc., can and should be expected to shoulder even greater responsibilities in administration. This Cooperative is conducted on principles that can serve as valuable guidelines to others, since it provides ample scope for human development.

9 There could and should be more publicity given to this cooperative, so as to increase membership and expand its business.

10. Some lay leaders should be involved in running such Cooperatives. It would be an excellent way for them to gain experience in undertaking "self-help projects".

11. Ways and means of cooperating more fully with St. Michael's School for the Blind could be explored, so that both could mutually benefit from these.

Services to Beggars

Problem: The problem of beggary is one of the major social problems in India. Poor people frequently flock to urban centres seeking employment. Often they find no jobs open to them owing to the lack of influence or skills on their part. Consequently, many take to begging. Some are destitute and actually need help; others are, however, perfectly capable of earning a living for themselves. Several become chronic cases since they do not receive any proper guidance at the right time.

Parish priests, heads of institutions and generous individuals, who give aid, are usually hard pressed for time. They have few means at their dis-

living. Irregularities and misbehaviour of members are brought to the notice of the members and, during meetings, the offenders are warned. If no improvement is subsequently shown, the member concerned is expelled.

Finances: Each year Rs. 180/- is spent on the lease for the land. The original structures were obtained at no cost to the Cooperative. Later, help was received from Misereor for the building.

For the initial expenditure, a small amount, Rs. 500/-, came from the government. This loan has not been repaid as yet, and a small interest is still paid on it regularly. The Cooperative runs at a deficit which is made up through private donations.

The main problems the Cooperative has to face are related primarily to finance caused by insufficient contracts and a lack of stability in the members. A few years ago a rival group took away contracts and induced members to leave. However, those that were enticed away, came back to this Cooperative after some time.

Evaluation

1. The Cooperative achieves the purpose for which it was established, namely to secure employment for the blind. The members enjoy a much better standard of living than they have ever enjoyed before.

2. The contact with government is purely legal. Officers are interested only in checking the accounts. A good relationship has been established with the local School for the Blind.

3. The greatest strength of the Blindman's Cooperative lies in its numerous self-help activities. The blind are made independent and are no more a burden on their families, and they learn to cooperate with others having similar problems. When they earn, they acquire a higher status in society. They are thus kept off the streets and they concurrently provide minimum comforts for their wives and children.

4. The work produced is of good quality and the rates charged are reasonable. At times there is delay in complying with the orders on hand.

5. There is urgent need for broadening the scope of work, and the membership, of the Cooperative. At the present time only those who can undertake cane work benefit from it. Finding alternate means of employment for the blind in Ranchi is, therefore, very necessary. At present the Cooperative caters to only 19 members and the families of five of them. They have no choice in their occupation, and this restricts the overall membership. Moreover, membership is not yet open to women.

6. The investments made in the Cooperative, in terms of time and

money, do not provide adequate financial returns. The members are not in a position to compete in the open market, because of their physical handicaps. The Chotanagpur Project has, therefore, classified this effort as a *social welfare service of a non-profit making denomination and,* as such, it may be termed as being a success. This success may be attributed to the following reasons:

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Parish priests, heads of institutions and generous individuals, who give aid, are usually hard pressed for time. They have few means at their dis-

posal to conduct proper investigations, or make a real assessment of the situation pertaining to each individual who comes to them for aid. Frequently, therefore, they extend their help merely to be rid of the applicant.

In the city of Ranchi, those who regularly give aid, have now come together to try to attack the begging problem on a cooperative basis; so far, however, they have not made any significant progress towards a coordinated effort to solve this problem.

The Study: To understand this problem better, and to work out a practical solution, a study was undertaken during the summer of 1967, in Ranchi, by a student of the social work under the direction of the Chotanagpur Project Team.[1]

The aims of the study were to find out the characteristics of the people who seek aid and assistance from parish priests and superiors of Catholic institutions, in Ranchi, and to make an analysis of their problems.

Method: The parish priests of Ranchi, Doranda, Samlong and Kanke, and Superiors, were interviewed with an interview guide. Subsequently, for ten days thereafter, the people who come to the Ranchi Parish for aid were interviewed with yet another questionnaire.

The Findings: Altogether 57 persons were interviewed, when they came for aid.

Social Groupings: Their social groupings were as follows:

Social Group			**No. of interviewees**
Tribals:	Oraons		31
	Mundas		6
	Mahli		1
	Ghasis		2
		Total	40
Non-Tribals:			
	Brahmin		1
	Das		1
	Cahars		2
	Chawhar		1
	Anglo-Indians		6
	Muslim		2
	Kunhars		2
	Others		2
		Total	17

1. Sr. M. Augusta, Post-graduate student in Social Work, Institute of Service, Roshni Nilaya, Mangalore. Unpublished thesis submitted to the Mysore University.

Age and Sex: Most of the people interviewed were adults, and there were more women than men. Unemployment, ill-health, old age or vice led men to destitution. Women were more often reduced to destitution indirectly through the death or illness of the head of the family, or abandonment by the husband. These and other reasons, often left the women defenceless, sometimes with a baby in arms. All this combined with a lack of knowledge about any useful skills made their earning capacity negligible.

The following table gives the figures by sex and age.

Years	Male	Female
11–20	1	1
21–30	4	9
31–40	9	14
41–50	2	10
51–60	2	4
Above	1	—
Total	19	38

Locality: Sixty per cent of the interviewees come from the immediate parish locality, while 25% came from within the parish area. Only 15% came from outside the region

Socio-economic Status: Most of them were poor, 20% were much like the average people in the area, 70% were below the average, while 10% were above the average.

Education: About 40.4% of them were illiterate. While 31.6% had primary education, 21.05% had attended middle school. Two were matrics, and only one had been to college.

Occupation: By occupation, 30% were cultivators or agricultural labourers, 40% were semi-skilled workers who could draw a salary of Rs. 100/— a month, and 30% were unskilled workers. Most of them were either unemployed or underemployed.

Their work status was as follows:

Jobs they held	*No. of interviewees*	*Percentage*
1. Cultivated land	1	1.8
2. Unskilled work in industry	13	22.8
3. Domestics and daily labourers	20	35.0
4. Altogether unemployed	23	40.4
Total	57	100.0

Why they approach the Parish Priest

Their reasons for approaching the parish priest were given as follows:

Reasons	*No.*	*Percentage*
1. Parish Priest is kind and helps everybody in need	37	64.9
2. It is the duty of parish priests to help us	9	15.7
3. The parish priest is the proper person who is able to solve our problems	5	8.7
4. The parish priest himself called us	3	5.4
5. We were referred to him by others	1	1.8
6. We did not want to ask help from anyone, but we had no alternative	1	1.8
No answer	1	1.8
Total	57	100.0

Types of Problems : In most cases they had one or more types of problems confronting them.

More than 75% of them had problems of an economic nature, at least 38.1% of them had problems of a social nature, about 10% had problems with their children, while a few had problems with religion or housing.

(a) *Social Problems:* Most of those who had problems of a social nature had marital problems too. The husbands and wives were separated or had quarrelled with each other. This was due to lack of self-control, and the quarrelsome nature of or friction often caused by in-laws. About one-fourth of them had problems with other members of the family, while an equal number comprised women who had alcoholic husbands. A few reported friction with neighbours, and one faced hostility from his own family members because of differences with them over religion.

The roots of these social problems, at times, go deep down into traditions and customs already prevalent in society. At times gambling and drinking, which start as innocent pastimes, decline into vices, causing serious loss of earnings, and tension between family members and neighbours.

(b) *Economic Problems:* Many of those who had problems of an economic nature were unemployed. A large number had financial worries because they had small wages and large families. With the constant upward trend in prices, their anxieties and insecurities increased.

Some begged because of destitution; others through sheer laziness. Accidents and thefts had also brought about economic hardships to a few. The Famine in Bihar increased the number of thefts in 1967.

Attitudes Towards their Problems: In order to help people who beg, it is essential to first know and understand their attitude towards their own condition, and to ascertain whether or not they are willing to cooperate in solving their particular problems. Much depends on their own attitudes towards life. Many of the people interviewed during the course of this study felt that they were fated to be in trouble. These people were passive by nature, and would not try to overcome their difficulties.

Those who suffered due to drought hoped for good rain. They felt that a successful monsoon would see an end to their troubles.

Most people with marital problems admitted that these were probably brought about by their own mistakes. However, they felt that these could be overcome only through mutual agreement between themselves and their partners, and they considered the parish priest to be the best person to help them search and reach areas of agreement.

Several realized that their problems hindered them from making any material progress.

Attitude Towards Asking Help: Most people who came for help, did so because they felt that their parish priests and superiors were well educated, better informed and generally more experienced persons than themselves. Nor did they consider asking for help anything to be ashamed of. In fact, they regarded themselves as being wise enough to seek the advice of more learned people.

There were some especially the Anglo-Indians, who thought that it was the proper thing to do to seek help. According to them it was the duty of parish priests and their superiors to look after them both bodily and spiritually and to provide for their welfare. These people demanded material aid as though it was their moral right.

Some of the people examined had a more passive attitude. They were resigned to their lot. The physically handicapped, for example thought that God had made them for begging. They devised various ways in which to excite pity. There were some however, who disliked asking for material help These people were usually ashamed of themselves and were genuinely concerned about the future and were eager to cooperate with the parish priest in solving their own problems.

A few made suggestions—such as starting more workrooms to provide added employment opportunities. When asked for their views, the parish priests and superiors themselves were in favour of running a social welfare agency on a cooperative basis to deal with this problem.

Conclusion: The study conducted highlighted the fact that the interviewees often went to several sources, and often received aid by fabricating pathetic tales. This tended to make the benefactors a little wary of even genuine cases.

1. Since Ranchi has a high tribal population a large number of the interviewees were tribals, but non-tribals also came to the parish priest for aid and assistance.

2. Most of the interviewees were between 21 and 50 years of age. So it was possible to involve them in their own rehabilitation.

3. The majority of them came from the immediate locality. Therefore, a social worker could investigate these cases easily.

4. Most had problems of an economic nature. Several types of solutions had to be found for them such as, the best way to present themselves to potential employers; urging them to retain their jobs and improve upon them; putting them in contact with the Employment Bureau; or exploring the job market and setting up classes to train a few of them. The chronic cases obviously called for more intensive case work treatment.

5. Those suffering from social problems had to be relieved of many of their tensions and sufferings. These could be helped to think more deeply about their own problems and arrive at intelligent solutions. The services of a professional social worker would be of great help here.

6. A few of the cases, such as the destitute, the aged, the mentally or chronically ill, need to be taken care of by proper institutions, either government or private.

7. To plan and implement any concerted action programme to solve any or all these problems, it will be necessary for all the donors to come together and set up an agency with a part-time or a full-time social worker who is capable of handling these cases in a scientific and a systematic manner. Those who give aid, need more than ever now to cooperate with such a person and make sure that his services are centralised. If they continue to give aid independently of one another, they will defeat the purpose for which such an agency is set up.

Large sums of money now spent indiscriminately in alleviating the suffering of beggars could thus be utilized more profitably, and many people, and their children, could be discouraged from begging.

Joint Ventures with Non-Christians

When large sections of the community are affected by such crisis as famine, communal riots or mine disasters, Christians join hands with government and non-Christians in bringing relief to the suffering. Often they play a leading role. Examples of such cooperation between both Christian and non-Christian undertakings are numerous in Chotanagpur and the Santal Parganas.

1. Ranchi is well-known for its facilities for the treatment of the mentally

sick. Two mental hospitals are located in Kanke, five miles from the city. To prevent mental ill-health, a Child Guidance Clinic was established in Ranchi with the help of St. Xavier's College. Consultation services are available to parents with problem children. However, this service, which was used in the beginning, is not understood and patronized sufficiently by the public at the present time.

2. Christian Churches of all denominations played an active part in relieving the suffering of the people in the famine-stricken villages of Palamau and Hazaribagh, which were the two districts most seriously affected by the drought in 1967. They joined hands with Government to strengthen programmes in remote areas, carrying food and medical aid to the villagers.

The Archdiocese of Ranchi appointed a coordinator, to help several groups of sisters who set up quarters, in Palamau, under very trying conditions in order to help the hungry, the sick and the dying. In some of these places Christians had never been known before. These operations were carried on for nearly six months.

3. Soon after the famine relief programme was terminated, a Seminar was held in which agencies which worked with the Government met to evaluate the work done and draw lessons from it. The coordinator appointed by the Ranchi Archdiocese, played an important part in organizing this seminar. The dedication of the priests, sisters and lay professionals, at the time of the emergency, won the admiration of high Government officials connected with relief work.

4. *In Jamshedpur and Ranchi, during 1965 and 1967, when communal* riots broke out, many small businesses were ruined and heads of families murdered. Christians were quick to rouse public opinion, through newspaper articles, against such violent behaviour. Despite the fact that their efforts were often misconstrued and their motives sometimes questioned, the Christian Churches were equally quick in mobilizing resources and providing immediate relief to those affected by the riots. During the months that followed, they worked in close collaboration with Hindus and Muslims to rehabilitate those who suffered losses. A Catholic priest headed this relief committee.

5. Christians have often joined hands with other voluntary agencies, such as local Rotary and Lions Clubs, in various welfare projects. A very good example of this was the great mine disaster near Bokaro. The parish priest, who was also a member of the Lions Club in Bokaro, organised and undertook a valuable survey together with neighbouring clubs in the area, and they provided relief to the families which had suffered.

Christians of all denominations today continue to work on local, district and state committees for social welfare, in many parts of Chotanagpur.

In order to serve people in a manner befitting human dignity, social welfare programmes and institutions have to be administered on sound social principles. Dedication and goodwill are not by themselves enough and cannot fully take the place of scientific knowledge and tested methods of dealing with children, youth and adults.

Schools for social work have sprung up throughout the country since the thirties[1]. More than a dozen schools offer a two year post-graduate course, which equips persons with the skills necessary to begin social work practice. Some of these schools give a Masters' Degree, while others offer a Diploma in Social Work. In North India, the Universities of Delhi, Lucknow, Baroda, Udaipur and Banaras have schools for Social Work. Both men and women receive professional education in these institutions.

There are several schools for social work under Catholic auspices too. These are at Loyola College (men) and Stella Maris (women) both in Madras. In addition, the Institute of Social Service, Nirmala Niketan (women), Bombay, The Sacred Heart College (men) Thevara, Kerala and The Institute of Social Service, Roshini Nilaya (men and women) in Mangalore also undertake social work education.

Yet a few other schools offer courses at the under-graduate level. Short term courses are given in many Jesuit Colleges as an extra-curricular activity. The Indian Social Institute of New Delhi gives a three month course twice yearly in socio-economic development. In Bangalore, seminars in family life education are also promoted. These course cover some of the many aspects of social work education.

None of the universities in Bihar offer a regular two year social work course. There are in Bihar only two institutions under Catholic auspices, which include some aspects of social work training in their curriculum. They are:

1. The Xavier Institute of Social Service, Ranchi, which was originally started in 1955, with rather broad objectives in view. The Institute offered a two year course in Social Service, with specialization in Industrial Relations and Labour Welfare. Gradually, however more and more emphasis has been laid on the latter. It is now passing through a period of re-evaluation.

2. The Xavier Labour Relations Institute, Jamshedpur. This Institution offers a two-year post-graduate course in Industrial Relations and Welfare. A part of the course is devoted to social welfare training. In addition, the theory of social work methods, Indian social conditions, sociology psychology, labour and social welfare are also taught.

1. The first school was started in 1936. Located in Bombay, it is called the Tata Institute of Social Science.

Practical training involves field trips to industrial organizations and social welfare agencies as also actual work in a social service agency for a period of three months.

III. CONCLUSION

It is evident from the social welfare work carried out by the Church in Chotanagpur, that there are no professionally trained social workers to be found anywhere in the six districts comprising this region.

Investigations and discussions with parish priests, headmasters, superiors of convents, as also interviews with people, show that the people of Chotanagpur, not unlike the rest of mankind, are confronted and afflicted with deep-seated and complicated human problems. For example, the emotional problems connected with unmarried motherhood are on the increase; the social stigma attached to, and the impact upon families and patients suffering from leprosy or mental illness are still great, principally because these diseases continue to be very prevalent in Bihar. Again, there are many parents who are disturbed because of a physically handicapped or a mentally retarded child in the family. All these are problems which need people with special skills to understand the complexities of the situation and to find appropriate solutions for them. Except, perhaps, for one or two rare individuals, the need for highly skilled professionals in the social welfare field has not yet been felt, leave alone been seen at any level of the Church's hierarchy or working force.

Case work services for all types of marital, youth and other social problems need to be provided through a social service agency or a trained social worker, so that people in trouble can be helped effectively. At present, parish priests, catechists, sisters and teachers, handle social problems of the people as best as they can.

Secondly, vast reserves of human potential remain untapped. It would not be fair to the people of Chotanagpur if no mention were made in this chapter of the strengths inherent in the adivasis. One of the basic principles of social work is to assess the strength of a people in order to help them better their environment and overcome their own weaknesses.

The injustices meted out to the tribals, over a long period of time, and the shattering poverty they have endured have made them a race who rely, in the main, upon themselves and upon nature around them. They lead a simple life and, by dint of hard work, try to eke out an existance. During times of real hardship, they live on the roots and herbs they gather from the jungle.

The tribals care for their children, as also those of their clan or tribe if they are left destitute by the death of parents. The majority of them generally do not seek help, even if they are in grave need. Nor does this attitude change when they move to urban areas. A typical example is that of a small vegetable vendor, in Ranchi, mother of three children. This woman herself

cared for an infant abandoned by an unwed mother, rather than take the child to the local orphanage. In spite of her poverty, her generosity towards the child was both genuine and great. The hardships attendant on feeding an extra mouth did not make her hesitate or desist from shouldering this added burden.

The positive attitude of most tribals towards children accounts for the relatively modest size of the existing orphanages in this region, as compared to the very large ones found in other dioceses. The children brought to these homes, are usually those of non-Christians. Indeed, Christian Churches of other denominations do not feel the need for orphanages in Chotanagpur, and in most instances, the sons and daughters of the family take it upon themselves to look after the educational welfare of their younger siblings. In fact, they look upon it as their duty. Aged parents and sick relatives too are not generally abandoned. This provides security for many destitutes.

Despite their modest wealth, the tribals in this region are a hospitable people. They generally make visitors very welcome and share with them the best foods they can prepare. Never in a hurry themselves, they are hardly ever eager to send away their guests; nor do they send them away empty-handed. Vegetables and fruit from the garden are always shared. Their ability to establish human relations makes them a happy and a contented people.

Tribal Church leaders are determined to preserve these strengths which make for healthy family and community living. Moreover, since most tribals in this region are a generous people, it is not unusual to see mothers who are poorly clad and have hardly enough to eat, make their offerings in kind during Sunday Church services.

Parish priests placed in remote villages far from urban centres frequently relate the heroic efforts of parishioners in carrying cement, iron bars, and bricks over long distances, through difficult terrain, free of charge for Church constructions. Indeed, many of the buildings constructed for use of children or adults, in the missions, have been put together with donated labour.

As education and contact with the outside world reach isolated villages most tribal people gradually adopt new values of personal hygiene and industry. Again, parents who have not themselves received much from life have high aspirations for their children.

The Christian Church has taken these strengths into consideration in developing the people further. However, it is worth suggesting here that future plans for the social welfare of the people concentrate less on buildings and institutionalised programmes, and more on providing trained personnel skilled in developing the young, the educated, and the women, so that they acquire qualities of leadership. Much hard work still needs to be done in this direction. The fact that no laymen nor women, have emerged as out-

standing leaders among the Catholic tribals points to the need for directi greater attention to this. In the other Christian Churches, lay leaders a given far greater responsibilities in making decisions in their Church affai than in the Catholic Church.

Self-help projects, active organizations, clubs, seminars and conference well planned and systematically executed, will provide tribals the need opportunities to assume greater responsibility. These activities should organized at the local, district and regional levels. Persons should be train and employed to do this work on a full-time basis, and they should not given "step-motherly" treatment, as is often the case.

As a further step in this direction, tribal priests, sisters and the lait should be encouraged and allowed to take risks and make mistakes. Th will make for growth and development. But above all, it is imperative th they now be given a chance to make important decisions, and be taught accept the consequences. Directly involving them in this way, withou further delay, in the decision-making process of parish projects and scheme will not only contribute to their better all-round participation and suppor but will provide them with the experience they so earnestly desire and need

Very often adivasi priests and sisters frankly expressed to us their feeling of inadequacy. Their inability to draw up plans which would meet th rigid specifications and requirements of government or foreign dono distressed them greatly. They felt rejected when their applications an plans for a local church project were not accepted while those of their foreign born counterparts were financed. In this connection, they asked for shor term courses which would help them develop the ability to draw up a projec or make sound plans.

Groups and organizations, of local origin and membership, need th immediate attention of Church leaders so as to enable them to develop the own potentialities. Such groups need adequate facilities for study, such a libraries, equipment and able tutors. As one parish priest, referring to a indigenous group in his area said, "they have a tremendous spiritual impac on the people, but they are unable to give intellectual leadership and guid ance." *This situation can be remedied if a conscious effort is made by th* Church.

As new generations of tribals receive higher education, their teachers extension service workers, catechists and other parish personnel, will als need to cope with the children and young adults of educated parents. Th necessity of preparing such teachers and parish workers for this from now in order that they are ready for the tasks which lie ahead, cannot, therefore be minimised.

The aim of all social work is not merely to remedy social ills, but als to "enhance the social functioning of individuals and groups." The huma *personality is our richest wealth: the focus has, therefore, to be on its growth*

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CHAPTER VII

THE CHURCH AND EDUCATION

I. FACTS AND FIGURES

1. Introduction

As is apparent from the preceeding Chapters, the Chotanagpur Project has limited itself principally to studying the role of voluntary agencies, particularly the Churches, in the fields of health and socio-economic development.

General education was not originally included in our survey. However, since education does have a direct bearing on the socio-economic status of the people, the work of the Churches in basic, technical, agricultural and social education have also been studied.

A survey was undertaken of tribal graduates for the last 15 years from St. Xavier's College, Ranchi, to study the impact of college education on the social and economic life of the Adivasis.

This Chapter, therefore, mainly seeks to fit the data of the above mentioned survey into the broader picture of education in Bihar and Chotanagpur. The data and statistics compiled are drawn mostly from the Report of the Education Commission (1966), popularly known as the Kothari Report.

2. Literacy Among the Tribals

Chotanagpur Division and the Santal Parganas contain 94% (4 million) of Bihar's total tribal population.

It is possible from the 1961 Census to obtain an indication of the literacy rates prevalent among the tribal population, though these figures also include the non-tribal population inhabiting these areas. The figures available are, therefore, merely indicative, since a more recent survey in Chotanagpur has showed literacy among the tribals to be 50% above the average literacy in the State. This is fairly clearly shown in the following figures:

Literacy in the Tribal District — 1961

Dhanbad	25.4%
Singhbhum	22.8%
Ranchi	18.7%
Santal Parganas	14.6%
Hazaribagh	14.5%
Palamau	13.6%
All Bihar	18.4%
All India	24.0%

3. Scholarships and Other Benefits for the Tribals

Merit scholarships, merit-cum-poverty scholarships, welfare stipends, remission of fees and similar benefits have been specified by the Government for tribal sutdents. The following table shows the extent of the help which has been granted:

STIPENDS FOR THE BACKWARD CLASSES 1951-52 AND 1960-61

Year	Tribals	Harijans	Other Backward Classes	Total
		A. School Stipends		
1951-52	792	5,135	2,712	8,639
1960-61	12,052	27,334	13,725	53,111
		B. Post-Matriculation Stipends		
1951-52	146	287	405	838
1960-61	2,229	2,750	3,374	8,353

4. Teacher Education

The Education Commission (1966) has cited the following data:

In Bihar 82.7% of the Lower Primary School Teachers and 72.5% of the Higher Primary School Teachers are trained. Nevertheless, Bihar ranks fifth lowest among the states in the number of trained teachers in the secondary schools.

In 1966-67, Bihar had 7 Teachers' Training Colleges (men—6, women—1) and 138 Teachers' Training Schools (men—99, women—39). One Training College is presently in Ranchi, while another is in Deoghar. Chotanagpur and the Santal Parganas have altogether 37 Training Schools.

There are, at present, 1,169 trainees enrolled in the Training Colleges; 28,615 in the Training Schools.

Details of the 8 recognized Training Schools run by the Churches in Chotanagpur and the Santal Parganas are given in the table below. There are altogether 5 such schools in Ranchi, one in Hazaribagh and 2 in the Santal Parganas.

Teacher Training Schools Under Church Auspices
Chotanagpur — Santal Parganas

Name of School	Year of establishment	No. of Students (1966)	Tribals	No. of Teaching Staff	Govt. Stipend per month
1. St. Margaret Women's Training School Ranchi (S.P.G. Church)	1909	53	50	4	Rs. 20-30/-
2. S.P.G. Teachers' Training School (for Men), Ranchi (S.P.G. Church)	1904	51	45	4	Rs. 6/-
3. Bethsaida Women's Training School, Ranchi (G.E.L. Church)	1948	48	48	4	Rs. 30-40/-
4. Ursuline Convent Girls' Training School Lohardaga Ranchi (R.C. Mission)	1914	98	98	7	
5. Teachers' Training School Noatoli (R.C. Church—St. Gabrial Brothers)	1912	40	40	4	Rs. 20/-
6. Teachers' Training School Sitagarha, Hazaribagh (R.C. Church—Society of Jesus)	1950	79	78	5	Rs. 40/-
7. Christian Training School, Deoghar, S. Parganas, (Church of India)	1912	38	29	3	Rs. 20-40/-
8. Maharo Christian Girls' Training School, Dumka, S.P. (Church of India)		Not available.			

The District-wise distribution of Teacher Training Schools in Chotanagpur and Santal Parganas is as follows:

DISTRIBUTION OF TEACHER TRAINING SCHOOLS
CHOTANAGPUR & SANTAL PARGANAS

District	Government		Church		Other	
	Men	Women	Men	Women	Men	Women
Ranchi	6	1	3	2	1	—
Hazaribagh	5	—	1	—	—	—
Dhanbad	2	—	—	—	—	—
Singhbhum	3	1	—	—	—	—
Palamau	3	1	—	—	—	—
Santal Parganas	6	—	1	1	—	—
Sub-Total	25	3	5	3	1	—
Grand Total	37					

In the Church-administered Training Schools the proportion of male trainees to female is 1:1; for government schools it is about 8:1.

In all the Training Schools of Bihar in 1966-67, there were altogether 25,008 men and 3,607 women enrolled.

5. Primary Education

The number of Primary Schools in Bihar and their numerical strength is given in the following table:

PRIMARY SCHOOLS—BIHAR

Year	Number of Institutions		No. of Scholars (in lakhs)	
	For Boys	For Girls	Boys	Girls
1955-56	26,800	2,700	14.9	1.2
1959-60	31,500	4,100	22.9	2.2
1961-62	33,000	4,400	26.0	2.5

The latest figures for the whole of Chotanagpur are not available. The Education Department of Ranchi District has, however, furnished us with the following figures for that district for 1965-66. These are given below:

PRIMARY AND MIDDLE SCHOOLS RANCHI DISTRICT—1965-66

Schools	No. of Schools	No. of Scholars		Total
		Boys	Girls	
Primary Schools and Junior Basic Schools	2,425	109,679	50,283	159,962
Middle and Senior Basic Schools	410	64,769	24,806	89,575
Total	2,835	174,448	75,089	249,537

The number of tribal children in these schools in Ranchi district was 157,143 (boys—107,952; girls—49,191).

The following figures give an idea of the literacy rate for certain tribal groups in Bihar as in 1961.

Literacy per Thousand—Bihar—1961

Munda	138
Oraon	127
Kharia	132
Ho	96
Santal	61
All Tribals	92

The 1967 statistics for recognized primary schools, in the three leading Christian dioceses of Ranchi are as follows:

CHRISTIAN PRIMARY SCHOOLS—RANCHI DIOCESES—1967

Church	Districts	No. of Schools	No. of Scholars Boys	Girls
Roman Catholics	Ranchi Palamau Hazaribagh	538	31,522	14,316
S.P.G.	Ranchi Hazaribagh Singhbhum	52	12 000 (no separate figures available)	
G.E.L.		88	3,664	2,942
Grand Total		678	64,444	

The number of Middle Schools in the same dioceses are as follows :

	Number	*Scholars*
Catholics	121	17,645
S.P.G. Church	22	3,200 (approx).
G. E. L. Church	37	7,564
Total	180	28,409

6. Secondary Education

The following figures give the statistics for secondary schools in Bihar.

been the only graduate college in Chotanagpur for many years. It became a co-educational institution in 1950. At present, it is a constituent college with more than 1600 students on its rolls (1965-66); men—1400, women—200. It has 57 members on its staff. About 41 % of the students belong to the scheduled and backward classes.

St. Xavier's College, Ranchi (1944) is run by the Jesuits and is affiliated to Ranchi University. It has often been acclaimed as the best administered college in the state with comparatively high standards, discipline and morale. In 1965-66 it had about 2,400 students (men—78 %, women—22 %) of whom nearly half (47 %) belonged to the scheduled and backward classes. The college also has the distinction of catering to the largest number of Christian students (47 %) among all the colleges in the State.

The Xavier Labour Relations Institute (XLRI) Jamshedpur, and the *Xavier Institute of Social Service* (XISS), Ranchi, were started in response to the needs and challenges of industrial Chotanagpur. These two institutions have already been dealt with comprehensively in our Chapter on Industry.

The following figures give an indication of the number of colleges, their type, the number of students and staff, as also the ratios between these, in Ranchi University, in 1964:

RANCHI UNIVERSITY—1964

Type of Colleges	No. of Colleges	No. of Staff	No. of Students	Staff-Student Ratio
Arts, Science, Commerce & Law	28	697	16,745	1:24
Engineering	4	234	4,121	1:18
Agriculture & Veterinary	2	31	473	1:15
Medicine	2	69	633	1:9
Total	36	1,031	21,972	

8. Vocational and Technical Education

Independent India is currently striving to emerge as an industrial nation. The country has immense manpower resources, and our educational institutions must impart the skills required by industry.

Soon after independence the Indian Government launched an intensive programme of technical education.

Consequently, the absorption of matric and under-matric personnel into the industrial world was promoted through the Apprenticeship Act of 1961, the Junior Technical Schools and Polytechnics, Multipurpose Schools,

Artisan Training Centres (under the Ministry of Community Development), the various programmes of the Khadi and Village Industries Commission, and a number of private and government trade schools. Today, there are 356 polytechnics in the country for training semi-skilled and skilled workers with a total capacity of 1,13,000 and 103 Junior Technical Schools with a total intake capacity of 18,000. Besides, there are 1834 Apprenticeship Training Centres with more than 22,000 seats.

The Chotanagpur Division, lying as it does in the heart of India's mining and industrial belt, is an area which has naturally witnessed the rise of numerous technical and trade institutions during the past 2 decades. Today, there are 33 technical and industrial training institutes in the area, 23 are run by the government, and 10 by private agencies, including one by the G.E.L. Church.

The district-wise distribution of the institutes is as follows:

Technical Institutes—District-wise

Ranchi	6
Singhbhum	11
Hazaribagh	4
Dhanbad	8
Santal Parganas	3
Palamau	1
Total	33

One of these institutes, the Technical Training Centre, Fudi, deserves special mention since it was the first of its kind, and the only one so far which has been established by the Church, as an expression of her presence and activity in the industrial areas. Commissioned in 1961, by the G.E.L. Church, as a training-cum-production centre, it enables young men to gain practical experience in small industrial undertakings and in facing a new way of life under industrial surroundings. The Centre trains such workers as fitters, carpenters and welders. It is affiliated to the National Council of Vocational Trades, and its trainees are allowed to sit for the examinations conducted by the Government of India. The number of trainees who passed out of the Centre, up to 1966, was 36.

Besides this institute there are presently five other church-sponsored institutions catering to the moral as well as material needs of labour and management in urban Chotanagpur. They are:

The Xavier Labour Relations Institute, Jamshedpur.

The Ecumenical Social and Industrial Institute, Durgapur.

The Catholic Employment Bureau, Ranchi.

The Young Christian Workers' Movement, Jamshedpur and Ranchi.
The Xavier Institute of Social Service, Ranchi.

There are altogether 9 government sponsored industrial training institutes in Chotanagpur. Three of these, and 60% of the seats in a fourth, are reserved for tribals, as detailed below:

Industrial Training Institutes Chotanagpur

1.	Dumka*	328 (reserved)
2.	Sahibganj	296
3.	Ranchi	572
4.	Ranchi*	400 (reserved)
5.	Hazaribagh	400
6.	Dhanbad	701
7.	Bokaro	328
8.	Chaibasa*	744 (60% reserved)
9.	Daltonganj*	299 (reserved)
	Total	4068

One of the most useful services which the Church has been rendering to tribals, from the very beginning of its activities, is training tribal children in various crafts and trades. It is generally known that the tribals are very adept at manual skills because of their background. One of the ways in which their economic and social conditions can be improved is to develop these latent qualities in organized and creative ways. For this reason, the Church has established a number of trade and craft schools as a part of its mission. Today the Catholic Church alone runs a total of 15 such schools in the Chotanagpur Division. Of these 2 are carpentry schools, 3 commercial institutes and 10 weaving and tailoring schools. 11 of these are meant for girls and are run by the Ursuline and St. Ann's Sisters. From these 15 institutes, the total output of trained boys and girls, from their inception up to 1966, has been estimated at about 5,000 (girls 3,575, boys 1,425). The largest output of boys, about 1,000, has been from St. Joseph's Carpentry School, Katkahi (Ranchi), and of girls, about 1,500, from the Weaving and Tailoring School, Noatoli (Ranchi). Besides these the S.P.G. mission runs a craft school for the blind, a carpentry school, and a weaving school in the Ranchi District.

In 1966, there were, in all, 87 trade and craft centres, including 17 commercial institutes, in Chotanagpur. Thirty-two of these were in Ranchi District, and thirty in Singhbhum. The number of centres belonging to different craft and trade categories is as follows:

Trade and Craft Schools—Chotanagpur

1.	Weaving, tailoring, lace, embroidery, etc..	24
2.	Carpentry	13
3.	Blacksmithy	3
4.	Cane and Bamboo Production	6
5.	Footwear and leather works	4
6.	Commercial institutes	17
7.	On the job training centres	8
8.	Others (trade-cum-production, handicrafts, etc.)	12
	Total	87

9. Professional Colleges and Institutions

PROFESSIONAL COLLEGES—CHOTANAGPUR 1964-65

	Kinds of Institution	*No of Scholars*
1.	Law (1)	611
2.	Medicine (2)	633
3.	Veterinary (1)	200
4.	Technology (4)	3,443
5.	Agriculture (1)	273
6.	Teacher Training (1)	Not available
	Total	5160

10. Education of the Handicapped

The handicapped population may roughly be divided into four broad categories:

(*a*) *The Blind:* A recent survey conducted by the Government of India, Ministry of Health, estimated the number of blind persons in the country to be approximately 4,000,000; 400,000 are of school age. At present there are about 115 institutions for the blind with an enrollment of 5,000, or a little over 1% of the blind children. The Central Government has set up three centres for the training of tachers for the blind; they train about 40 teachers per year. It has also established a comprehensive National Centre for the Blind at Dehra Dun, which publishes text books and other reading material in Braille, and produces Braille appliances.

In Chotanagpur there were, in 1966, 4 institutions for the Blind:

(i) St. Michael's School for the Blind is situated in Ranchi and is run by the S.P.G. Church. It was the first one to be established, (1898), in the area, and the seventh one in India. The school is run as a Middle School

and teaches reading and writing through the Braille system. It also trair blind people in suitable crafts and trades, with a view to making them sel supporting as early as possible. The strength of the school in 1966 wa: boys—30, girls—16.

(ii) The Blind Man's Cooperative, Ranchi, was started in 1957 and sponsored by the Catholic Church. Since its inception it has served abou 60 visually handicapped persons and at present has a membership of 19.

(iii) The Sheltered Workshop for the Blind is situated at Kadru and sponsored by a non-Christian voluntary agency.

(iv) The Dhanbad Blind School is sponsored by the Dhanbad Blin Relief Society, a civic group of Dhanbad city. It is a middle school, an imparts education in suitable crafts and trades. It is well supported by th management and labour of the collieries, and receives special scholarshir for the children of the miners from the Coal Mines Welfare Organizatior It was begun in 1952 and has 30 boys on the rolls.

(*b*) *The Deaf:* The number of deaf in the country is based on estimate from a few sample surveys which suggest that there are 1 to 1½ million dea persons in India. The number of deaf children is believed to be 300,00(Some 4,000 or a little over 1% are enrolled in 70 schools for the deaf through out the country. Most of these schools provide a primary education wit some vocational training in engineering and non-engineering occupation: Some 50 to 60 teachers of the deaf are trained in about 6 centres in the countr

In Chotanagpur, the only institution for the deaf is the Deaf and Dum School at Hinoo (Ranchi). It is a privately owned institution and impart pre-vocational training in engineering, crafts, etc.

(*c*) *The Orthopaedically Handicapped:* Although no national survey o this category of handicapped persons has been carried out, it is nevertheles estimated, from sample surveys, that their number is about 4,000,000. Sinc most of these children do not present any special educational problem (thei major problem is locomotive in character) they often attend ordinary schools and do not need any specially trained teachers. At present there are 2: institutions in the country meant especially for these children.

(*d*) *The Mentally Retarded:* It is difficult to determine the number o children in this category. However, estimates once again based on sampl surveys, put their numbers between 1.4 to 1.8 million. Due to its complexity this aspect of education has made very little progress in India. There present ly exists about 27 schools for the mentally retarded, of which one is run b the Central Government. The number of children in these schools is aroun 2,000. Two teachers training centres prepare about 20 teachers, per year for the mentally retarded.

The Cheshire Home at Jamshedpur attends to about 50 mentally retarde

children; it is run by a local non-denominational committee and is staffed by the Vincentian Sisters of Charity from Behrampur. There is also a home for retarded children at Hazaribagh.

11. Education and Employment

Recently the Government of India, Ministry of Labour, Employment and Rehabilitation, gave out the following facts on employment in India. There were 2.7 million people on the live register of Employment Exchanges at the end of June 1967. As regards their level of education, 1.7 million (63%) were non-matriculates; and 680,000 (25%) matriculates. Applicants who had passed the Higher Secondary Examinations totalled 211,000 (7.8%) and graduates 110,000, including 4,900 engineering and 572 medical graduates.

There are 12 government Employment Exchanges in Chotanagpur. The undernoted table provides an overall picture of the position in the Employment Exchanges, in Chotanagpur and the Santal Parganas, during the first 11 months of 1967.

Employment Exchanges—Chotanagpur
30 November, 1967.

Name of Bureau	Registration		Placements		Number on live Register As on 30.11.67	
	Total	S. Tribes	Total	S. Tribes	Total	S. Tribes
Ranchi	18,697	4,991	1,554	442	10,584	4,032
Hazaribagh	8,360	380	678	45	4,617	130
Jamshedpur	27,546	3,703	3,699	461	38,588	5,818
Dhanbad	8,870	334	356	17	10,498	206
Patratu	7,701	560	608	3	4,161	317
Sindri	10,369	1,370	5,110	824	3,928	152
Dumka	4,700	730	259	76	1,057	142
Marafari	42,664	1,804	614	20	53,580	2,980
Jharia	9,311	47	2,435	0	4,193	20
Chaibasa	6,169	1,982	248	144	3,338	1,295
Total	144,387	15,901	15,561	2,032	135,544	15,092

The Catholic Employment Exchange, Ranchi, had a successful and promising start; *but due to lack of finance and personnel, it has of late been less* active in the employment field. The number of registrations for the year 1967 were about 850; of these ten per cent or so were found employment, mostly as contract workers.

II. ST. XAVIER'S COLLEGE, RANCHI.

12. A Study of Former Students of St. Xavier's College, Ranchi

In the last 15 years 800 adivasi students graduated from St. Xavi College, Ranchi; 68% male, 32% female.

460 (57.5%) returned the questionnaires put out by us for this sur Given below are statistics and graphs compiled by us from the answ received.

Whence and where are the former students?

The Whereabouts of Our Former Students

Districts	Present Address (in p.c.)	Home Address (in p.c.)	Plac Bi (in p
Ranchi	58.7	80.9	8
Hazaribagh	3.5	0.6	
Palamau	2.2	2.4	
Singhbhum	5.2	0.9	
Santal Parganas	0.9	0.9	
Other Districts	1.9	0.2	
Outside Bihar	27.6	14.1	1.
Total	100.0	100.0	10

Number of respondents : 460

In the above Table 12.6% of the students have been shown as being bo outside Bihar. This was mostly in Madhya Pradesh.

27.6% now reside outside Bihar, mainly in Orissa, Madhya Pradesh a Bengal.

When were these students born?

Table I of the appendices of this Chapter, provides a graph indicati the answers to this question. (see page 409)

Civil Status: Table II of the attached appendices giving a graph indicati of the Civil Status of the students examined, underlines the fact that 66 are still unmarried, though well past the marriageable age.

Family Size: Table III of the appendices attached to this Chapt giving a graph showing the Family Size of Married Respondents and Tab IV similarly attached, providing the numbers of Brothers and Sisters

Respondents, point to the fact that the families of married respondents are comparatively small, especially when compared with the size of their parents' families, an average of 1.4 versus the parents' average of 7.2.

Social Mobility and Social Status: Table V of our appendices gives the Occupational Status of the Respondents' Fathers, and Table VI the Present Occupational Status of the Respondents. Both these underline the vast differences between the occupational status of the fathers and that of their educated children.

The inordinately low number of professionals among the former students may be explained by the fact that the majority of them (49%) graduated with only a III Division or mere pass, and that too, in Arts. Some 36% passed in the II Division, and only 2.4% secured I Division, one of them a I Class First. Science graduates number only 4% of the total.

Employment and Emoluments: The following figures give an indication of the range of employment and emoluments drawn:—

Emoluments of Those Employed at Present

Range of Salary	Teachers (in p.c.)	Clerks & Accountants (in p.c.)	All Others (in p.c.)
0—50	0.0	0.0	0.0
51—100	6.6	5.5	1.4
101—150	32.9	23.6	10.2
151—200	25.8	18.1	5.8
201—250	13.2	23.6	15.9
251—300	8.4	25.0	11.6
301—350	1.2	4.2	10.2
351—400	1.7	0.0	11.6
401—450	0.6	0.0	8.7
451—500	0.6	0.0	7.2
Above 500	0.6	0.0	8.7
No salary mentioned	8.4	0.0	8.7
Total	100.0	100.0	100.0
Number of respondents:	167	72	69

Students' Impressions of their College Education and Training:

Q. Why did you go to College?

observation and assessment by teachers and parents of the student's special aptitudes and interests—these various aspects of vocational guidance should begin at the middle school stage itself and continue through college. The various steps have special importance in the case of tribal students most of whom came from rural areas and are often unaware of the different kinds of vocations open to them. As mentioned earlier in this report almost all the students in our study seem to think that there are only two possible careers for college graduates, namely, that of teacher and clerk. The vocational guidance centres started very earnestly by the Bihar Government in various places in Chotanagpur are now practically inactive due to lack of initiative and continued enthusiasm on the part of the officials as well as poor response from the public. This is an added reason why our institutions should involve themselves more in this area.

d) Job Placement

At the college level, the greatest good that the institution could do for students after giving them their degree is to see to their placement after graduation. In some countries, like the U.S., the students while still in college, are already booked by various firms and institutions and their prospective employers even provide them with opportunities for their apprenticeship after class-hours or during the college vacations. In this way, the students begin working immediately after graduation. The success of this kind of vocational guidance and placement programmes would naturally depend upon the training given, the needs of the country and the extent of personal and social contacts and good public relations which the institution has with various employers. There is no reason why such a system should not be tried in our colleges too. St. Xavier's is perhaps one of the best colleges in the State with its well-trained faculty, efficient administration, and high academic and disciplinary standard and, as such, its graduates are better qualified than others in obtaining good employment. One way in which to make this possibility a reality would be to have an efficient public relations officer, preferably a layman, in the college, who should have good contacts and influence with private as well as government concerns both within the state and without. Of course, placement of the graduating students does not, strictly speaking, come within the purview of the duties of a college towards its students. It is suggested only as another one of those many programmes and activities that are carried on for the economic and social uplift of the Adivasis.

e) Emoluments of Teachers

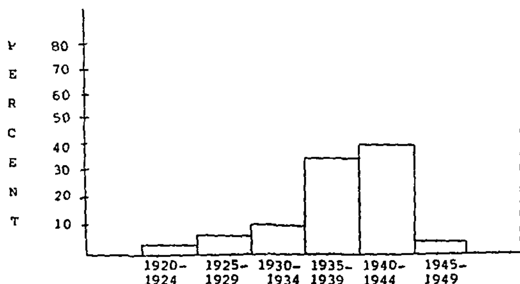
Our survey also gives us some food for thought regarding the emoluments given to our teachers. It was mentioned earlier that the average salary of a teacher in our sample is Rs. 182.67 p.m., the largest group (33%) falling within the scale of Rs. 101–150. This is much lower than the salary of matriculate trained teachers proposed by the Education Commission (Rs. 150–250). The Education Commission's special reference to the private primary schools in Bihar as the lowest paying institutions in the country, should be taken as a real challenge by private managements in Bihar.

f) New Challenges—New Goals:

The Christian educational institutions in Bihar have a glorious and almost enviable past history. Despite the few deficiencies and draw backs which can be pointed out in the christian educational system, it can be asserted unequivocally that Christian institutions have had the most vital influence on tribal uplift. What is required now is to rethink and redefine goals so that the tribals can successfully meet the challenges of an industrialized and urban Chotanagpur.

APPENDIX : TABLE—I

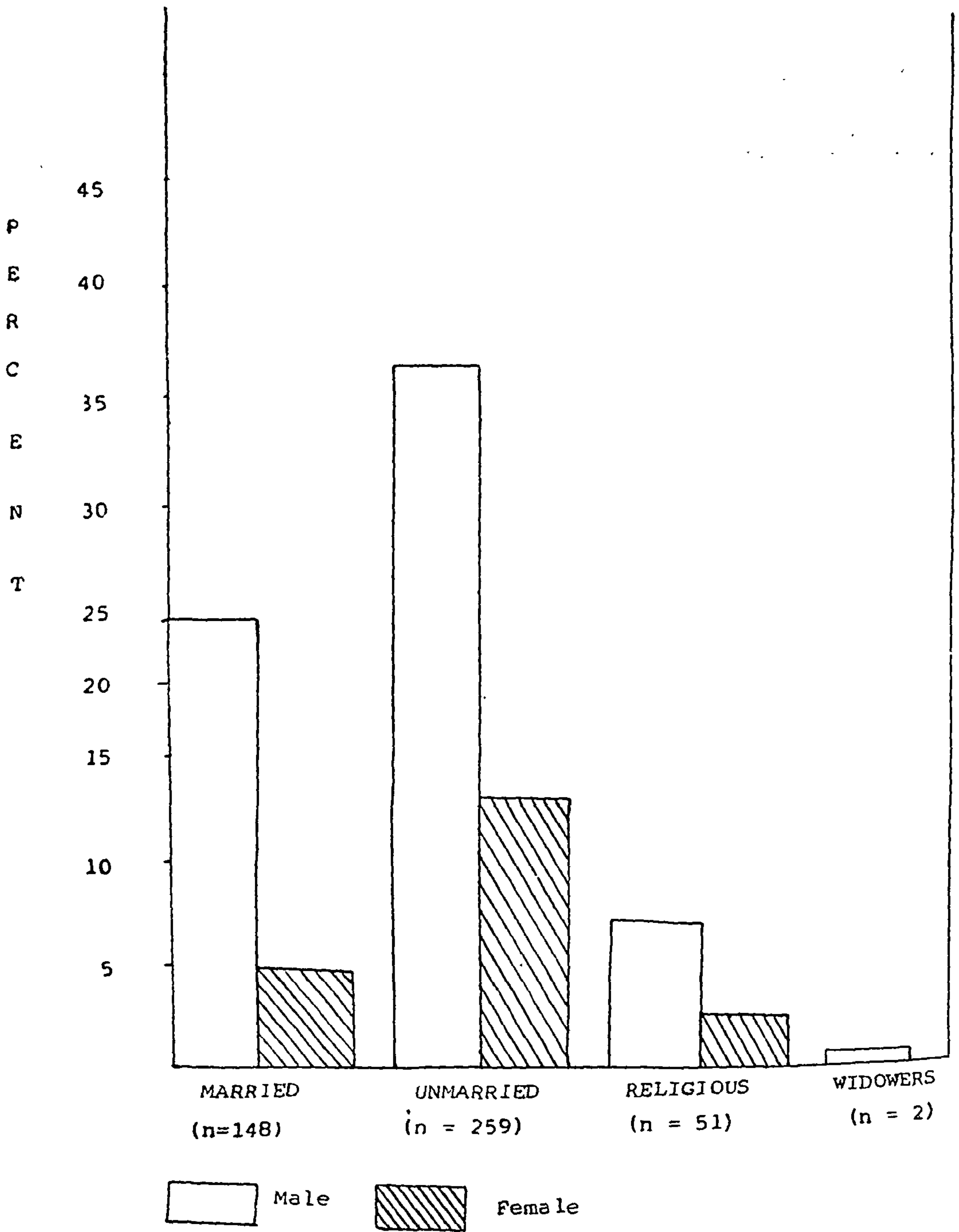
When Were These Students Born ?



Total number of respondents : 460

APPENDIX : TABLE—II

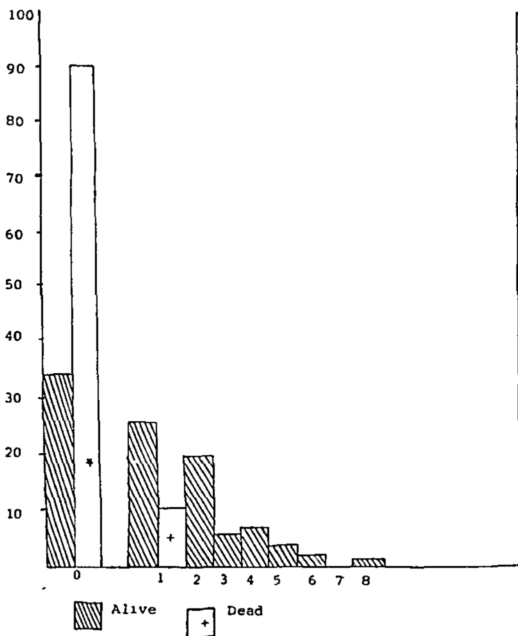
Former Students Classified in % According to Their Civil Status.



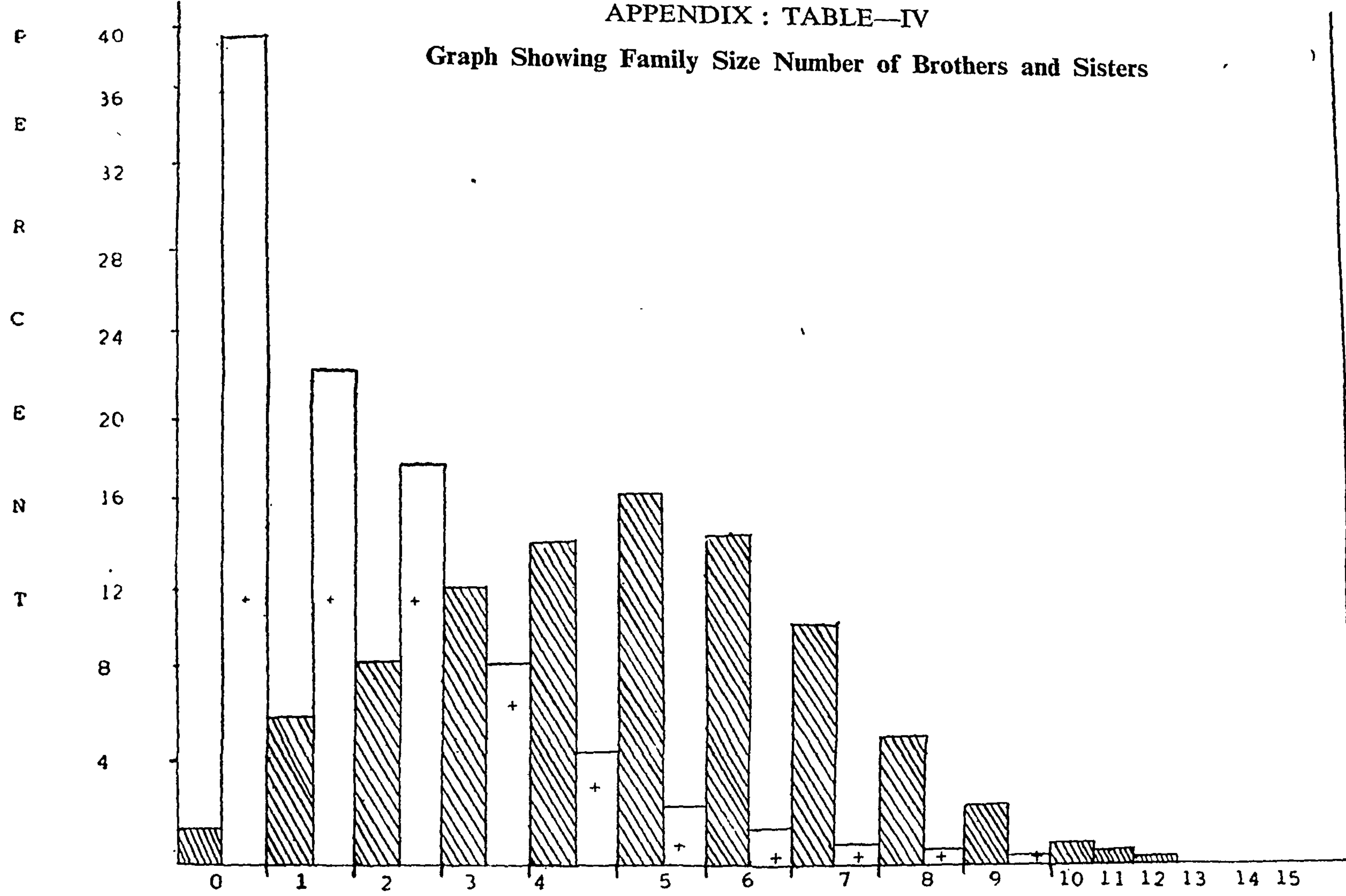
Total number of respondents : 460

APPENDIX : TABLE—III

Graph Showing the
Family Size of Married Respondents
Number of Children, Living and Dead, of the Married Respondents.



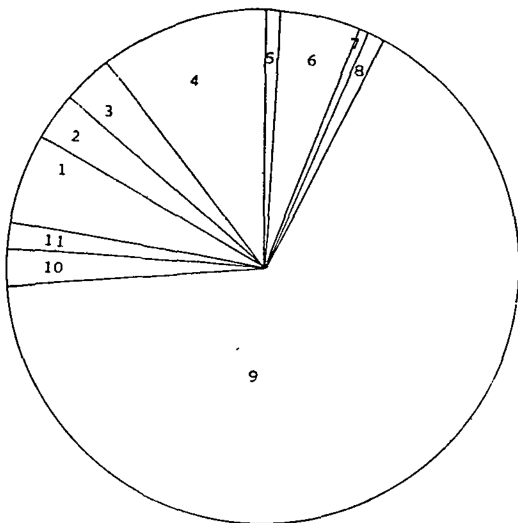
Total number of respondents : 148.



Total number of respondents : *460.*

APPENDIX : TABLE—V

Occupational Status of the Respondents' Fathers



Total Number of Respondents : 334.

1. Unskilled worker/farm labourer/domestic servant (5.6%)
2. Artisan and skilled labourer (3.3%)
3. Clerical and sales (3.3%)
4. School teacher (10.5%)
5. *Professions (Engineers, Doctors, Lawyers)* (0.6%)
6. Government officials (4.5%)
7. Business executive (0.3%)
8. Landlord (1.2%)
9. Owner cultivator (66.8%)
10. Non-owner cultivator (1.5%)
11. Other (2.4%).

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CHAPTER VIII

THE ALL-CHOTANAGPUR SEMINAR

I. THE SEMINAR

Its Importance

The principal motive of the Chotanagpur Project is to provide guidelines, on an objective basis, to Churches in Chotanagpur for their work in the spheres of health and socio-economic development. This has been accomplished, to some degree, by studying present day conditions and trends in Chotanagpur, and existing Christian activity in the region in answer to man's health, social and economic needs.

However, the Christian answer to these needs cannot be the outcome of a sociological survey alone. The answer has to be the fruits of a dynamic confrontation between a social reality and a doctrine—theology. The latter, though known to us in its general principles and implications, needs to be clarified and brought closer to the actual conditions in which the people live and work.

With this in mind, our research project has, from its very inception, carried plans for a Seminar to bring to the knowledge of Church leaders and other responsible people in the area, the findings of our Survey, and to prepare the ground for more efficient and coordinated Christian action in Chotanagpur. The Seminar was considered necessary by us, to bring together those engaged in social research, those in daily contact with man's needs and aspirations, and those busy with theological thinking and doctrinal elaboration.

The Seminar had to be a practical one. It was felt that it should provide a good opportunity to Christians and the different Churches in re-examining the roles played by them, particularly where similar problems were faced in a well-defined geographic setting—Chotanagpur. The reassessment or "aggiornamento", had to be done firstly in the light of existing conditions and trends in Chotanagpur, and secondly, in the light of voluntary and government activity already in the area, and the Seminar had to be undertaken

6. Different interpretations of "democracy" were resulting in endle disputes, and producing an imbalance in human society.

7. The gap between the rich and poor was widening. Against this, ma felt his dignity and pressed his claims.

8. Labourers and farmers were dissatisfied. They wanted a share i regulating the social, political and cultural life of the country.

9. The Roman Catholic Church, through the Decrees of the Secon Vatican Council, was urging the faithful to work in collaboration wit others for social and economic improvement.

10. The Geneva Conference on the Church and Society was now askin the World Council of Churches to address a strong appeal to all th Churches stressing the usefulness of closer cooperation between Chris tians of all confessions, and between them and other religious and non religious groups, down to the parish level, in order to inform an educate public opinion.

All these factors had repercussions on religious life. Therefore, it wa necessary now for Christians to re-dedicate themselves to the tasks ahead.

At the close of the inaugural session Mr. Paul Lakhan Lall, Secretar of the Bihar Christian Council, proposed a vote of thanks.

The Second Day:

Theme: The Signs of the Times.

Chairman: Rt. Rev. Bishop Picachy, S.J. of Jamshedpur.

On the second day of the Seminar, the participants were presented wit a comprehensive picture of the existing situation in Chotanagpur, in th fields of Agriculture, Industry and Health. Government policies and pro grammes relating to these fields were clearly outlined by officials present.

Agriculture

Shri A.A. Khan, Deputy Director of Agriculture, Chotanagpur Range, was unable to attend the Seminar and his paper was read by Shri A.W. Khan, Oil Seeds Development Officer. This was followed by a discussion on the situation by agriculturists, educators and farmers. The panelists were:

Mr. E.W. Massey, Extension Department, Agricultural College, Kanke.
Fr. A. Delporte, S.J., Director, Agricultural Centre, Lohardaga.
Fr. J. Blandin, S.J., Parish Extension Work, Singhbhum District.
Fr. L. Torfs, S.J., Director, Extension Work, Majhatoli Parish, Ranchi District.

The speakers pointed out that efficient, mature and competent extension workers were important for the adoption of improved farming methods. Graduates from Agricultural Colleges who frequently possessed only theoretical knowledge were unable to win the confidence of farmers.

Developing "community consciousness" among villagers was vital for the success of agricultural programmes.

Despite good yields in parish demonstration farms, conservative tribal farmers were not easily convinced about the soundness of new agricultural methods.

Greater cooperation between the government and voluntary agencies was very important for the development of agriculture. Very soon, government programmes did not succeed, not because of faulty government policies, but due to lack of local resources, talent and cooperation in implementation. It was generally conceeded though that in some instances, rules and regulations impeded collaboration with government.

Industry

Two speakers elaborated on the industrial situation in Chotanagpur. The Bihar Government's programmes and policies for urban and industrial Chotanagpur were briefly outlined by Mr K.V. Abraham, Commissioner for Mines and Geology, Bihar.

"Management-Labour Education in the Framework of Urban Industrial Chotanagpur" was the subject of a paper by Mr. Joseph Philip, Assistant Professor of Management, Xavier Labour Relations Institute, Jamshedpur. Their talks were followed by comments on the industrial situation in Chotanagpur by a panel of experts. They were:

Fr. F. McFarland, S.J., Jamshedpur
Mr. K. Schwerk, Director, Technical Training Centre, Fudi.
Mr. T.P. Chitambar, Dhanbad.
Fr. M. Van den Bogaert, S.J., Director, Xavier Institute of Social Service, Ranchi.
Rev. Kenyon E. Wright, Director, Ecumenical Social and Industrial Institute, Durgapur.

Analysing the situation, a few of the areas of concern highlighted were:

The pre-occupation of the Church with rural and not urban problems in Chotanagpur had resulted in the neglect of the latter in the past. Although analysing the past was, therefore, necessary, drawing a constructive plan for the future was more essential.

A large portion of the mineral wealth of the State lay buried in Chotanagpur which offered its people enormous scope for the establishment of mineral based industries. Huge industrial plants were already in existence

in the region, but greater efforts were needed to exploit th
In the past, in Bihar, there had been a lack of spread eff
industries and a disparity in the industrial growth betwe
plans had to consider ways of remedying these defect

Though three of the major undertakings of the
were in Chotanagpur, it was suggested that for the fu
essential that there be very considerable growth of ancil
and above the large scale industries. There was nee
sector to explore the facilities available through govern
ment of ancillary industries.

Another area that needed attention was the manage
in the industrial framework of Chotanagpur. Ma
needed to aim at producing better equipped and mo
while labour education was necessary to create well-inf
workers, open to reason in crises. Both these were c
future of industrial Chotanagpur.

In management training the focus had to be on prog
knowledge, developing skills and forming appropriate
education had to concern itself primarily with trad
philosophy. Today's unions required the highest q
tenacity, honesty, efficiency, an intelligent appreciation
its social institutions.

Two panelists disagreed with one speaker regard
Government Worker Education Scheme in Dhanba
unions had to be free of political and government
that only government could afford capital and other
Worker Education on a massive scale.

Human beings affected by the industrial revolution
needed attention. One panelist asked, "What is th
the soil in the present context of industrial developm
say that the answer was not to be found in a sort
training the tribals in leadership management and busi
problems of development in urban Chotanagpur we
of machine or manpower but by certain attitudes and

Another panelist suggested that outbreaks of vio
communal riots in Ranchi and Jamshedpur, were sym
sickness in society. This illness needed intellige
problems and frustrations among workers could be
fying their social as well as economic needs and n
need for respect and human dignity.

[illegible]

[illegible]

Health

During the session on health, Dr. [illegible] Director of Health Services, Chota Nagpur Division, [illegible] tions and services in the Division. [illegible] discussion by professionals in health, [illegible] panelists were:

- Sr. (Dr.) M. [illegible], Holy Family Hospital, [illegible]
- Dr. R.E.L. Thompson, St. [illegible] Hospital, [illegible]
- Dr. Martin [illegible], Holy Family Hospital, [illegible]
- Mrs. C.C. Joseph, [illegible] Hospital, [illegible]
- Miss Margaret [illegible], St. Columba's Hospital, Hazaribagh

Touching on the problems of population one [illegible] in Dhanbad the female population predominated in the [illegible] division. Therefore, at all sub-divisional and divisional headquarters provisions were made by government for antenatal and postnatal care of mothers. Although dispensary beds were available in the rural areas the patients had to arrange for their own food and except in emergency cases these beds were rarely used. Voluntary agencies had a role to play in urging the sick to take advantage of these facilities. It was felt that the need for planning families was indeed great, though liberalising abortion would be unwise. Public opinion too was unfavourable to this meas[illegible]

Very low living standards contributed to an increase in ailme[illegible] the general lack of education was largely responsible for a poor[illegible] personal hygiene and cleanliness. The panelists pointed out that the[illegible] also were normally tolerant of open drains, the formation of cess p[illegible] primitive sewage disposal systems, inspite of the fact that these [illegible] breeding grounds for mosquitoes and flies.

Adulterated food and polluted air were considered as serious [illegible] and vigilance on the part of citizens and government were required, [illegible] greater measure, to combat these dangers. Preventive measures had t[illegible] adopted far more rigorously to improve the existing health standards.

In this connection, it was widely felt that mass health education [illegible] publicity had to be undertaken to eradicate the deep rooted evils [illegible]

in the region, but greater efforts were needed to exploit them to the maximum. In the past, in Bihar, there had been a lack of spread effect of the basic metal industries and a disparity in the industrial growth between districts. Future plans had to consider ways of remedying these defects.

Though three of the major undertakings of the Central Government were in Chotanagpur, it was suggested that for the future it was absolutely essential that there be very considerable growth of ancillary industries around and above the large scale industries. There was need too for the private sector to explore the facilities available through government for the development of ancillary industries.

Another area that needed attention was the management labour question in the industrial framework of Chotanagpur. Management education needed to aim at producing better equipped and more efficient managers, while labour education was necessary to create well-informed and disciplined workers, open to reason in crises. Both these were considered vital for the future of industrial Chotanagpur.

In management training the focus had to be on programmes for imparting knowledge, developing skills and forming appropriate attitudes, while labour education had to concern itself primarily with trade union methods and philosophy. Today's unions required the highest qualities of leadership: tenacity, honesty, efficiency, an intelligent appreciation of human nature and its social institutions.

Two panelists disagreed with one speaker regarding the failure of the Government Worker Education Scheme in Dhanbad. They agreed that unions had to be free of political and government control, but suggested that only government could afford capital and other resources required for Worker Education on a massive scale.

Human beings affected by the industrial revolution sweeping Chotanagpur needed attention. One panelist asked, "What is the place of the sons of the soil in the present context of industrial development?". He went on to say that the answer was not to be found in a sort of "Siva Sena" but in training the tribals in leadership management and business enterprise. Often problems of development in urban Chotanagpur were posed not by a lack of machine or manpower but by certain attitudes and outlooks.

Another panelist suggested that outbreaks of violence, for example the communal riots in Ranchi and Jamshedpur, were symptoms of some uncured sickness in society. This illness needed intelligent diagnosis. Human problems and frustrations among workers could be remedied only by satisfying their social as well as economic needs and more importantly, their need for respect and human dignity.

The panelists urged that Christian youth who worked in collieries and factories should not be overlooked. They needed guidance in thrift as also in finding suitable occupations to keep them busy in their spare time.

nally, one panelist summed up the human problem urging that it must
oked at as a whole i.e. the development of the human person in its
y. There was also need for direct ministry and wholehearted service,
he laity had to be developed, otherwise, the new society would be
orn without it.

e discussion ended on a hopeful note that the Seminar would make it
le to replace rivalry and duplication of funds and personnel in the
hes by cooperation and singleness of purpose.

h

uring the session on health, Dr. R. Sinha, Regional Deputy Director
alth Services, Chotanagpur Division, elaborated on the health condi-
and services in the Division. His speech was followed by a panel
sion by professionals in health, with experience in this area. The
sts were:

(Dr.) M. Leonie, S.C.M.M , Holy Family Hospital, Kodarma.
. B.E.L. Thompson, St. Luke's Hospital, Hiranpur, S.P.
. Martin Ekka, Holy Family Hospital, Mandar.
rs. C.C. Joseph, H.E.C. Hospital, Hatia.
iss Margaret Idour, St. Columba's Hospital, Hazaribagh.

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e panelists urged that Christian youth who worked in collieries and es should not be overlooked. They needed guidance in thrift as finding suitable occupations to keep them busy in their spare time.

the surrounding villages. An association of free farmers was form cooperative marketing. As a consequence, the demand for new know and services had increased. For a further expansion of their activities, now found it essential to collaborate with government. In additio constant evaluation and rethinking of the aims and methods of the gramme went on all the while at the Khuntitoli farm, particularly in the li of experiences gained and changes which were constantly taking place

Mr. Bruns concluded by stating that the Christian Churches had, by an large, remained isolated from the people, and it was this fact, more tha others, which had caused him to raise some thought-provoking questions.

What had the Church done to lessen India's hunger? Did the missionaries and the Church have agricultural programmes for their own benefit or for those of the farmer? Were the poor Christians a bigger shame to the Christian Churches than hungry non-Christians? Finally, did the Churches in Chotanagpur feel responsible for the food situation in India?

Industry

Two educators well-versed in technical and industrial problems—Fr. M. Van den Bogaert, S.J. Director, Xavier Institute of Social Service, Ranchi, and Mr. K. Schwerk, Director, Technical Training Centre, Fudi and a research officer of the Chotanagpur Project, Mr James David, threw out a challenge to Church leaders exhorting them to take note of the complications brought into the lives of tribal Christians, in the wake of the growing industrial revolution around them.

One of the speakers observed that the response of the Christian Churches to industrialization in Chotanagpur, was much like the answer of a child rudely awakened while sound asleep. He said "Industrialization came and found the Church sleeping. Half dazed it provided the best answer possible, which was very inadequate." He stated that ventures such as the Technical Training Institute at Fudi would be very successful only if all the Churches collaborated with its sponsors

Another speaker pointed out that "while Christians from the South come north and settled here, the Chotanagpuri Christians moved from their villages into urban and industrial centres. Thus Christians were brought in closer contact with people of other religions. Could they take with them their Christian spirit into the urban complexes?"

What challenges would be involved in such vocations, considering the inadequacy of the basic attitudes and motivations of Christians in Chota-ur and the existing structure and institutions of the Churches? What e w s in which Christians could be better prepared to meet these ffectively?

sserted that the Church in Chotanagpur had been a

problem, however, was how to finance medical care so that it would be professional as well as economical.

It was suggested that a committee of all Christian hospitals be formed to look into the question of finances, and to speak in a united way when approaching government about questions in regard to the participation of voluntary agencies in national health schemes.

Social Welfare

A social work educator and practitioner from the Chotanagpur area, Mrs. Nilima Acharji of the Xavier Labour Relations Institute, Jamshedpur, and a member of the research team of the Chotanagpur Project, Dr. Jessie Tellis-Nayak, were the principal speakers at the session on social welfare.

In her speech Mrs. Acharji laid down the theoretical framework which formed the basis for social work and went on to list the social welfare activities of the Church in the Steel city of Jamshedpur.

She pointed out that social work as a discipline looked up to religion for its inspiration. The conceptual system of scientific social work had much in common with the Christian philosophy of the individual's worth as a human person. This emphasis on the worth of each individual and the acceptance of the person at his own level, found echo in the Bible. The most sustaining force for the social worker was his belief in man's capacity for growth and self-development.

Enumerating the activities of the Church in the city of Jamshedpur, she focused attention on some outstanding features regarding quality and methods of approach. Amongst those she mentioned were insight and a strict sense of discipline; the establishment of rapport between the giver and receiver through acceptance of common cultural levels; the sharing of benefits with others; and the making of a conscious attempt, with a spirit of accommodation, to work within and through other agencies.

She concluded by emphatically stating that the Church in India today had to be the spearhead of a creative minority which was neither a path of isolation nor of adaptation, but of participation in the life of the nation. "The Christian way is not a way to do certain things but a certain way to do all things", she said.

Basing her talk completely on the background paper on social welfare (which is incorporated in the social welfare chapter of this report) Dr. Tellis Nayak gave a few illustrations of social problems that called for professional treatment. She made a plea for more trained social workers in Chotanagpur. Touching upon the various social welfare activities of the Church in this region, she dwelt at length on their strengths and weaknesses. She made a strong appeal to Church leaders to more consciously develop the human resources in Chotanagpur.

Fourth and Fifth Days

Themes and Chairman for the Day

I "The Spiritual Basis of Our Service"
Rt. Rev. Leo Tigga, Bishop of Dumka.

II "Towards a Better and More Coordinated Effort."
Rt. Rev. P.J. Malagar, Director, Mennonite Christian Service Fellowship of India.

A beautiful and solemn ecumenical service was held on Sunday, with the heads of Christian Churches leading the Seminar participants to the altar of God, for an hour of worship together. At the service the Rt. Rev. S.K. Patro, Bishop of Bhagalpur, preached a very inspiring homily and expressed the hope that "the spirit of Mandar would live forever."

Commencing that evening, and continuing the following day, six panel discussions were held in which group leaders and selected participants from the discussion and work groups brought to the plenary sessions the principles, conclusions and recommendations which evolved during their several meetings.

This procedure provided an ideal opportunity for interested participants to make contributions and recommendations for finalization and adoption on the last day. There were animated discussions resulting in some amendments and corrections before the recommendations were finally approved.[1]

The topics of the various panels and the panelists were:

1. **The Theological and Doctrinal Principles of Our Service**

Panel: Archbishop Dominic Athaide, O.F.M.
Rev. James Tong, S.J.
Dr. C.K.P. Singh
Dr. J.H. Hellberg.

2. **Reviewing Our Position**

Panel: Agriculture—Rev. F. Streatfield
Urban-Industrial Problems—T.A. Chitambar
Social Welfare—John M. D'Costa
Health—Miss Margaret Idour.

3. **Planning and Coordination of Church Activities**

Panel: Fr. James Berna, S.J.
Mr. Paul Lakhan Lall
Mr. H. Zimmerman.

1. All the Seminar recommendations are presented together at the end of this Chapter.

2. It was considered better to think in terms of joint-action on an ec menical basis right from the beginning, than to concentrate, for initial period, on developing better planning and coordination with particular Church groups.

Despite the marked preference for practical and functional arrangemen of a local nature, it was recognized that, at least in the early stages, it wou be difficult to stimulate such initiatives. For this it would be necessary have some kind of "high level body" to give the initial impetus, and integrate local efforts into the overall framework of the Churches' authorit It was felt that the various aspects of these problems could be reconciled b the following proposal, which was presented as the main recommendation the Seminar.

Recommendation

1. As a follow-up on the Seminar, the work group recommended that STANDING COMMITTEE be constituted, to be known as th ALL CHOTANAGPUR DEVELOPMENT COMMITTEE, consist ing of heads of Churches or their nominees, for the purpose of promot ing greater coordination in planning and carrying out programmes i the Chotanagpur region. The group felt that, for the initial period it would be profitable to have one expert representative from AFPRC to sit on the Committee to help do survey and planning works.

2. One of the first tasks of the Committee would be to establish a numbe of SPECIALISED SUB-COMMITTEES to study the possibility o launching some concrete experiments in joint-planning and action i particular fields of activity, where the ground was already fairly well-prepared for joint-action i.e. in relief work, education, agricul- tural programmes and in the medical sphere.

3. The specialised Sub-Committees be composed mainly of persons who were professionally competent in their respective fields of activity and who were actively engaged in such work in the area. However, since the various aspects of the Churches' activities were closely related to one another, and all related in an intimate way to pastoral concerns, each specialised Sub-Committee could include representa- tives of related fields of activity and at least one person with wide experience in pastoral work.

4. The Standing Committee and its Sub-Committees be organised, in the first instance, on an All-Chotanagpur basis, including Santal Parganas. Their initial aim, however, be to promote practical and concrete experiments in joint planning and action at the local and sub-regional levels.

5. The group decided that the "All-Chotanagpur Region" be defined to include besides Chotanagpur and Santal Parganas, contiguous areas

such as Sundergarh ... Orissa, Surguja and Raigarh
in Madhya Pradesh and Purulia District in West Bengal,
commended that the Committee, when constituted, study the
cations of such an inclusion.

6. The Indian Social Institute and the Secretariat of the Bihar Chr
Council together be requested to act as the Secretariat of th
Chotanagpur Development Committee and each of these bodie
further requested to make available the services of a representa
to act as joint conveners of the Committee.

The Secretariat be provided with competent personnel and facilit
for continuing research of a scientific nature as a basis for the pla
ning and coordination of activities undertaken by the Committee.

The group strongly recommended that the Standing Committee b
onstituted and begin functioning not later than the end of the year.

ecognizing the fundamental fact that the cooperation in different
velopment services recommended in the Seminar must be the out-
ne of a deep sense of fellowship bestowed on the faithful by God
Holy Spirit, it was urged that conscious efforts be made to grow
fellowship of prayer and that joint worship services be held
ng the octave of prayer for Christian unity from January 18th
th every year throughout the whole Chotanagpur Region.

The working group specially recommended that the above resolution be incorporated in the final resolutions of the Seminar.

10. It also recommended that the charts and graphs displayed be published as part of the report of the Seminar.

VI. Report of the Work Group on the Population Problem and Responsible Parenthood

All those who participated in the Seminar agreed that population explosion was one of the most serious problems which India and the world faced today. It was a problem affecting the material and spiritual well-being of large numbers of human beings. Those political and religious leaders who even today tended to minimize the urgency and gravity of the problem, were not fully aware of the present rate of demographic growth in India and of its impact on the living conditions of a vast majority of the country's population.

Since the year 1921, often called by demographers "the year of the great divide", there had been an accelerated growth in India's population. With a steady two and half per cent population growth rate, the country had to feed some 13 million new mouths every year. According to a U.N. statistical projection, India's population was likely to double by the year 2000 and hit the one billion mark.

The country's agricultural and industrial production had not kept pace with population growth. One of the most urgent needs today, therefore, was to reduce the birth rate while efforts to increase India's productive capacity continued.

The Christian Churches had to accept the population explosion as a *real* problem and to use every morally acceptable means to help India reduce its population. However, birth control, as an Indian Cabinet Minister once put it, dealt with human beings and bristled with a series of social, cultural and psychological problems. The Christian Churches cannot and have not accepted methods of birth control which run counter to the natural law or challenge man's dignity and the sacredness of marriage.

Government legislation aimed at reducing India's population now needs to be carefully examined before it is accepted by the Christian Churches. Wholehearted support should be given to Government efforts to raise the age of marriage.

During the group discussions the Catholic Church's present stand on artificial birth control methods was questioned. The freedom of conscience of husband and wife, vis-a-vis the Church's teaching on family planning, was re-examined in the context of the pronouncements of Vatican II.

The Causes of Population Explosion in India

1. Because of the easy availability of and access to modern scientific medicines, the death rate had markedly declined. Greater control of epidemic diseases, better maternity and child care, and improved personal and community hygiene had increased the life span of Indians without a fall in the birth rate.

2. This constituted a serious problem for the country, since the available supplies of food, clothing, housing and education were not increased at an equally rapid rate. The official family planning policy of the Government would eventually, but not immediately, lower the rate of population growth in India. Modern demographic problems in India were varied and complex and consequently required a multi-dimensional approach.

Some of these problems were the result of fragmentation of land holdings; rapid expansion of industries and subsequent concentration of people in urban areas; increased full-time employment of women; increased proportion of women in the total population, most marked in the rural areas as men migrated to cities in search of employment; growing desire on the part of parents for better health and educational facilities for their children; the changing status of women. Someone illustrated the changing status of women by stating that while before the wife used to follow a few paces behind her husband, carrying a child, and often a head burden, she now rode on the cycle carrier or the rear seat of his motor cycle!

3. Indian cultural traditions emphasised that (a) all should marry should marry young. The attitude toward unmarried wom had a business or professional career was changing, but very Once married, the young woman was "safe".

4. The tropical climate of India seems to have had a positive in upon human fertility.

5. For climatic and environmental reasons, Indian children reac physical and sexual maturity earlier than those in the West. A you couple were, therefore, likely to be physically but not emotiona mature.

6. Crowded housing conditions.

7. Conservatism and religious scruples prevented couples from using available means of birth control.

Since the solution to this problem depends ultimately on the free will of the individual couples themselves, and not on any coercion from Government, the discussion group unanimously agreed that only education and removal of poverty could solve the problem.

Education meant improving the efficiency of every individual to accelerate economic growth. It also meant arousing a sincere desire in individuals for social change.

When poverty was removed and the material standard of living raised, there was bound to be a more responsible control by individuals of their sexual life and of the size of their families.

Education should also include sex education. Because of housing conditions many families enjoyed very little privacy. People also lived in close proximity with animals and became aware of sex biology early in life.

The need of society today is to understand better the higher moral and spiritual implications of marriage and of the sexual relations of husband and wife.

The group realizing the great need for sex education and responsible parenthood in the present social set up, in Chotanagpur, recommended to the Seminar that it consider this need seriously and find ways and means of fulfilling it.

Only a strong motivation for responsible parenthood could have any appreciable impact on the reduction of the birth rate in India. Hence immediate and adequate measures to provide more and better educational facilities and make the conditions of living worthy of human beings were necessary.

union with themselves, and elevate the good done by others, offering it to God along with their own good works as part of the total praise offered by the Church to God.

The Church has a mission to announce the glad tidings of the Gospel to all men. The Church likewise according to her ability endeavours to come to the assistance of all who are in need. Still, the Church worker should never require a change of religion as a condition for providing services.

VIII. Report of the Work Group on the Role of Outside Assistance

The Aims of Assistance

Outside assistance for programmes and projects in India consists of funds, materials such as food, medicines, equipment or fertilizers and personnel. Whatever form it takes, the assistance is designed:

1. to complement internal resources available. Therefore, any successful programme must be based on the fullest use of indigenous resources if it is to have a stable and continuing value.

2. to activate internal resources. Outside aid can act as a "spark plug" or catalytic agent to release latent resources and bring them into action.

3. to create genuine partnerships between people with different resources. Aid which creates a donor-recipient mentality rather than an attitude of equal sharing defeats its purpose. Whatever the quantitative proportions, the qualitative value of each party's share must be such that it inspires a sense of dignity and equality on the part of all involved.

4. to give opportunity for the development of local leadership and skills. This is especially true of personnel whose role and function must be so defined as to not stifle or inhibit others.

5. to meet immediate needs as in the case of emergencies. Even here, however, we should look for ways to make the aid remedial and constructive rather than just temporary relief.

6. to initiate and support development projects aimed at solving basic problems.

Uses of Assistance

1. *Planning*

a) Planning is an essential factor in the responsible use of resources, both internal and from outside. Planning must include a clear statement of the objectives of the project, setting forth its limits as well as its goals. A feasibility analysis and realistic plan of execution are

basic to determining the kind and extent of aid called for. A projection of the expected benefits from a project is also a determining factor in seeking assistance.

b) Exploration of every possible internal resource should be done before determining what outside assistance is needed. The internal resources will include the local Church, service bodies such as clubs and welfare organizations, and government at various levels. Most important is what the beneficiaries can themselves provide.

c) Only after the above steps can one determine the amount and kind of assistance needed from outside.

d) "Pay-off" possibilities are also an important factor in any project. Outside assistance should be given in the form of loans whenever possible to recover from those who benefit all or a part of the in-put. It is only right that they should make available to others the resources which have enabled them to prosper. A project which calls for a substantial repayment of initial investment will stimulate more business-like methods and help create a higher degree of responsibility.

2. *Types of Projects requiring assistance in Chotanagpur*

The group discussed some of the types of needs that exist in Chotanagpur for which assistance is required. The following are not in order of priority:

Aid for general education at the village level

It is often difficult to get outside aid for general education because it is generally thought to be the responsibility of the Government. However, in vocational and technical aspects, it is not so difficult. To give a person a vocation is to help him for life. Schools are aided to some extent through school lunch and nutrition programmes which act as an incentive to children to come to school.

Social amenities and services at the village level to create a more satisfying community life

Community centres, sports, fields, mobile movie units, etc. can bring people together and bridge traditional lines of difference to provide greater integration. They also serve to make life more "tolerable" for people with ability, who would otherwise leave for urban areas.

Projects aimed at agricultural development:

These are projects basic to improving the lot of the farmer and villager, as well as helping to meet the needs of the nation. Economically productive projects can also provide resources for meeting some of the needs mentioned in 1 and 2 above.

Small-scale and home industries:

Investment capital is required to help people start activities that will make them self-supporting. This should be primarily in the form of loans.

Health cooperatives
Assistance for this may include personnel as well as funds to start health programmes aimed at preventive as well as curative aspects of medical care. The local community must also undertake the responsibility of supporting health institutions.

3. The group discussed the development of indigenous personnel resources through the use of volunteers in a kind of "service corps." The work of over 200 volunteers in Bihar during the past months had shown that many young Indian people could make valuable contributions to development projects if given the chance. A number of those who had proved to be most capable could be recruited for a kind of service corps, on a one or two year basis, to help strategic projects. They could be given specific assignments where they could focus their efforts at the village level in a more effective way than the usual village worker-type person who had many varied responsibilities. Once such a service corps was well-established, outside volunteers could then be invited to work with them.

Coordinating Body

In considering the variety of overall needs for outside assistance in the Chotanagpur area, the group felt that it was necessary to establish some kind of coordinating, financing body. This might be in the form of a Development Body which would work out a more comprehensive plan for Chotanagpur which would include various aspects of work in the medical, socio-economic and educational fields. Support could be sought for the development programme as a whole. In this way projects which the Chotanagpur group felt important, but which were possibly less attractive to outside support, could be assisted along with the total programme. It would also, of course, provide for designated support of specific projects of an overall plan as well.

Such a Body would also be charged with the responsibility of developing internal resources to the fullest and of helping to make each economic development project as profitable as possible. Over a period of time funds would be generated from projects, and from other sources within the area, which would enable groups to have greater flexibility and freedom in undertaking those projects which it was felt were most important, regardless of the availability of outside assistance. This would require a high degree of competence in financial management and the control and technical assistance of competent, professional people.

IX. Report of the Work Group on the Role of the Laity, Clergy and Religious

One of the great problems that the people of Chotanagpur and the Church face results from rapid social change, chiefly industrialization, which brings with it a new way of life, a new vision, new values and a new culture. The bulldozers which precede the rise of new industrial and urban complexes often sweep away the old, whether physical, spiritual or social. The problem,

as in other newly industrialized areas, is that of preserving the workers' human dignity and identity. Production of material goods should not disregard the basic principles that man cannot be treated the same as a machine.

The task of the Church in this industrial age, therefore, is to be a helper and guide, directing her members in the right direction. The industrial and technical evolution of society is but the continuation in time of God's own creative action, and Christian witness should be adapted to, and expressed in, these new fields of human activity. Instead of keeping aloof from industrial and technological developments, Christians should prove themselves stewards and fellow-workers of Christ. Every creature is of God and therefore good; Christians should accept this principle and use it in so far as it contributes to the attainment of the ultimate goal for which they are striving. Although the Church's realm is not, strictly speaking, the material world or its needs, yet she has the obligation of preparing man to use and enjoy the fruits of modern culture and civilization, since she deals with the whole man, body and soul. She has to be the artisan of the new age so that its culture is truly human, and in it each man can find his true dignity.

If the Church is to answer the call of God then she must have a new stance and a new style of life. The task calls for a reappraisal of the role of the laity, clergy and religious. For the laity the call is *to be* the Church on all frontiers. They must live up to the high dignity to which they are called—a high dignity and a great responsibility to love and serve the world for which Christ died. In the past we have thought of the Church as an institution run by the hierarchy, priests and religious. Laymen were outside observers. Today this false conception has been corrected, thanks to the clear and unequivocal definition by Vatican II of the theological meaning of the Church which includes all the faithful, all the "people of God", all baptized members—lay, religious and clergy—of the mystical body of Christ possessing a gradation of gifts as well as duties.

In the past we have held the vocation to the priesthood and the cloister as the highest good, but now a change in direction and emphasis is called for. All vocations in the Church and in the world are of God and of equal importance to His plan of redemption. We must not only say this but act upon it.

In particular in the Chotanagpur area it would appear that the Church has treated the tribals, and still continues to treat them, as children who need protection and support. From the tribal people, however, comes a clear and persistent call for acceptance as co-partners in the Church and ambassadors in the world. This desire is good, God-given and cannot be rejected.

In the work group the Adivasis expressed a strong desire for training in leadership which would equip them for these urgent tasks. The group suggested that the roots of reform go back to the educational system, so that their latent and potential qualities be developed. The lack of leadership

3) Training teachers for vocational guidance and counselling.
4) Providing vocational guidance for all students preferably in Class VII and VIII.
5) Supplying vocational information and guidance through the following methods:

   i) The use of charts, posters and films on careers.
   ii) By inviting guest speakers to lecture on the various professions open to youth.
   iii) *By keeping parents informed of career opportunities for their children.*

6) Encouraging commercial studies such as typing, shorthand and filing, as well as the arts and sciences.

2. Specialised Schools

In this category two types of schools were considered: Technical High Schools and Grihini Schools.

a) *High Schools with a Technical Bias:* In these schools vocational training needed to be imparted along with the ordinary high school curriculum. Some observations made concerning the feasibility of such schools were:

   1) Ordinarily high schools were the end of formal education for most students. After S.S.C. they looked for a job.
   2) College education caused frustration to many students as many became "drop-outs" for financial or other reasons.
   3) Many subjects presently included in the High school curriculum were worthless.

Suggestions

— High schools be more diversified.

— Worthless subjects be eliminated from the curriculum.

— New subjects such as crafts, metal work, wood work, agricultural and business courses, and commercial courses be introduced.

— For young girls, subjects like home economics and home science be encouraged.

b) *Grihini Schools:* The primary purpose of these schools were to prepare young women as good wives and mothers. Courses taught in Grihini Schools included reading, writing, basic arithmetic, hygiene, nutrition, child care, gardening and home management. Grihini schools had, so far, proved very successful and were becoming more and more popular in Chotanagpur.

What was urgently needed now was a similar type of school for boys. Courses such as carpentry, methods of cultivation and other agricultural skills needed inclusion in the curriculum.

/nder-matrics in urban and rural areas

oth men and women with incomplete high school studies had employ-ent problems in urban and rural areas.

In urban areas: Some of the young people with little education were employed as semi-skilled or unskilled labourers in urban centres. Others were employed on a temporary basis as coolies or in the case of women "rejas" (construction workers).

Suggestions: In order to check the social, economic and moral deterioration of this particular group of workers, the following recommendations were made:

1) A local committee be formed to examine the needs of these labourers and suggest remedies.
2) Night schools be established so that some of these people could complete their education.
3) General education courses were needed to emphasise technical subjects like mechanical drawing, welding, wiring, bench fitting, etc. which offered immediate employment.

In the rural areas: Farmers had employment problems also. They worked hard for six months in the year (July to December), but once harvest was over, they looked for casual jobs in industrial areas. They worked as coolies in construction works or in brick kilns. Many of them migrated to other areas, especially Calcutta, and Assam, leaving behind lands and families. The social impact of their migration was apparent in broken families and in the disorganization of community life.

Suggestions: The main problem was how to keep the young farmer at home. Some suggestions were:
1) The development of "cottage industries" with local markets.
2) Encouragement of vegetable gardening, bee-keeping, etc.
3) A survey be conducted either by government or a private agency to ascertain which home or cottage industries could be started in the different regions.

.eadership Training

'o provide more and better leaders in the community, leadership train-ng camps and holiday camps were encouraged by the group. Such amps could foster genuine concepts of service and generosity in young eople. Teachers, too, could avail themselves of these opportunities.

The "House-System" and Scouting were also suggested as excellent means of leadership training.

Counselling was recommended as a means of developing each student.

X. B. Report of the Work Group on the Educational Role of the Churches in the Field of Health

The proposals and recommendations made by this group were as follows:

Medical Education

1. In order to detect early cases of leprosy in "skin" clinics, greater stress be laid on the study of dermatology in the medical school curriculum.
2. To remove the stigma of the term "leper" medical personnel be re-educated to avoid using this word and also to readily admit leprosy patients, as ordinary patients, in general out-patient clinics.
3. Group doctor services were recommended for the rural areas. By providing good, general, educational facilities for the children of these doctors, it was felt that more doctors would be attracted to rural areas.

Paramedical Education

1. A laboratory training centre was proposed to supply local health institutions with a constant source of well-qualified laboratory personnel.
2. Some of the larger hospitals in Chotanagpur with X-ray units be encouraged to undertake X-Ray training courses for local candidates.
3. Short-term courses for medical record librarians were recommended.
4. Social service centres in the area be encouraged to undertake short courses, seminars, etc. for those engaged in medical social work. Eventually this could be developed into a professional course.

Nursing Education

1. Several problems were discussed by the work group regarding nursing education in Chotanagpur. The main problem encountered was that the Christian nursing schools have to be entirely subsidized by the service hospital, implying a tremendous financial burden for these hospitals. At present board room, free tuition and a small stipend were granted to the nursing students. In order to help finance their training schools, hospitals should apply to agencies, both Indian and foreign, for individual scholarships for students.

2. Closer collaboration and cooperation between health institutions could provide a sharing of faculty and facilities for the extension of faculty and facilities for the extension of nursing programmes.

3. An Auxiliary-Nurse-Midwifery School was suggested for Chota-nagpur.

4. Nursing School candidates were often poorly prepared in mathematics and English. A post-matriculation course was proposed prior to entrance into nursing school which would prepare students by eliminating these basic deficiencies.

Education of Auxiliary Health Personnel

Short-term courses were suggested for the following categories of health personnel to acquaint them with modern methods and techniques.

a) Hospital administrators
b) Those in charge of kitchens (the course would [illegible] methods of economy, ways of adding to income, and [illegible] of running costs.)
c) Hospital housekeepers.
d) Hospital chaplains.
e) First Aid Course for employees and [illegible] groups [illegible] community.
f) Home Nursing Course for the local [illegible]
g) Course for nurses' aides
h) Courses for young men as hospital orderlies [illegible]

Health Education

1. [illegible]

2. [illegible]

3. [illegible]

4. [illegible]

modern and suitable methods of teaching in the villages. A pilot project be designed for research in this area.

5. The joint-action committee, proposed by the work group, needed to gradually build up a library of visual aids (films, charts, etc) for use in public health teaching. A catalogue of these aids could be distributed to all hospitals and health centres in the area. Vans equipped to show films were suggested. These vans could be shared for teaching purposes by health institutions in Chotanagpur and also provide a mobile library including literature on health and careers in health.

6. The work group urged closer cooperation between health centres in Chotanagpur in sharing equipment for public health education.

7. First aid courses and home nursing courses for responsible community leaders were suggested especially in isolated villages where medical care was not readily available. Methods of resuscitation and sanitation needed stressing in these courses. The Red Cross Society of India's Course in First Aid needed priority, since it offered a Government certificate. A list of course material prepared in other countries could be made available to health institutions. The joint-action committee could provide this service.

8. Health teaching by the Churches and an annual health day or hospital Sunday were also recommended.

9. The work group emphasised the fundamental idea that all medically trained personnel had a part to play in health education. Education for better health began with the patient and his visitors.

Proposals regarding Medical and Health Education

1. The discussion groups emphasized cooperation with Government in the total health programme of the country.

2. Inter-Church cooperation was desirable, particularly in the training of health personnel. Post-graduate education for physicians, especially in clinical pathology, would be beneficial.

3. Hospitals were urged to initiate programmes of health education in the villages.

4. Midwifery in the villages needed up-grading by short courses of training.

5. Priority be given to medical and health education. The Christian hospitals by discussion, fellowship and joint-planning should set standards of medical education, and Christian staff members be encouraged to participate as members of Government examining boards.

ımple Questionnaire sent out by the Chotanagpur Project of the n Social Institute, Ranchi, to Study the Activities of the Church in the s of Health and Socio-economic Development.

SOCIO-ECONOMIC DEVELOPMENT PROJECTS

)........... Type of Project : 1.
2.
3.

Title of Project:

a. Place: b. Anchal:
c. Subdivision: d. District:

Postal Address:

a. Parish: b. Diocese:

Started by:

In the Year:

Owned by:

Administered by:

Is the project legally registered ? Yes........ No..........

If Yes, 1. Under what Act:
2. Registration number:
3. Registration date:

Describe briefly the nature, scope, location and physical set up of the project:

Describe briefly the history of the project and its main stages of development:

Part I: Planning and Needs

Why was the project started ? Give the main reasons which led to its establishment (Do not suggest answers. Probe for precise answers. If more than two reasons given, record verbatim only two most important according to respondent):
1.
2.

14. From whom did the idea of the project first originate ? (Probe for a single answer and record it verbatim):

15. Before the project began, was any study or survey conducted to find out:

1. Conditions in the area or needs of the people: Yes .... No ....
2. Existing government or private services in the area: Yes .... No ....
3. Available local resources to finance project: Yes .... No ....
4. Set up and functioning of similar projects: Yes .... No ....

16. If Yes, (1) describe briefly the nature and scope of the study(s); (2) by whom it was (they were) conducted and what were the specific findings:

1.
2.
3.

17. If No, Why ? (Record answers verbatim. Multiple responses allowed):

1.
2.
3.

18. What factors determined the nature of the project, i.e. why this particular type of project was chosen rather than another? (Do not suggest answers. Probe for precise answers. If more than two reasons given, record only the two most important according to respondent):

1.
2.

19. What factors determined the location of the project, i.e. why the project was started in this place rather than another? (Do not suggest answers. Probe for precise answers. If more than two reasons given, record only the two most important according to respondent):

1.
2.

20. What factors determined the size of the project, i.e. why not bigger or smaller? (Do not suggest answers. Probe for precise answers. If more than two reasons given, record only the two most important according to respondent):

1.
2.

21. Before the project actually began, were the future beneficiaries or the

local people concerned aware of the specific needs which the p
was/is trying to satisfy?

1. All were aware:
2. Many were aware:
3. Some were aware:
4. None was aware:
5. Do not know:

22. If they were aware, how was this awareness concretely expresse

23. Before the project actually began, did the future beneficiaries o
local people concerned show any interest in the project?
    1. Much interest:
    2. Some interest:
    3. No interest:

24. If they were interested, how was this interest concretely expresse

25. Did the future beneficiaries or the local people concerned play an
in planning and actually setting up the project:

Yes........ No...... ..

26. If Yes, describe exactly the role they played:

27. Before the project actually began, were the beneficiaries or the
people concerned informed about the project?

Yes........ No........

28. If Yes, how was this actually done? (Multiple responses allowed
    1.
    2.
    3.

29. During the planning stages, was the project in any way discussed
and advice sought from:
    1. Experts:
    2. People running similar projects in the region or elsewhere:
    3. Future beneficiaries:
    4. Other local people:
    5. Others (specify):

30. Before the project actually began, were the future beneficiaries or l
people concerned asked to collaborate in any way in the plannin
setting up of the project?

Yes........ No........

31. How long did it take to set up the project?
1. From the time the project was first conceived until it bec
operational:

1. One to six months.
2. Six to twelve months
3. One to two years
4. More than two years

2. From the time the necessary funds became available until the project became operational:

1. One to six months
2. Six to twelve months
3. One to two years
4. More than two years

32. Have the original reasons or factors which led to the establishment of the project changed in any way?

Yes........ No........

33. If Yes, how?

34. If changes have taken place, has anything been done to meet the changed situation?

Yes........ No........

35. If Yes, describe it:

36. If No, give reasons:

Remarks Regarding Part I

Part II: Benefits and Beneficiaries

37. Describe nature, number and/or amount of socio-economic benefits which the project does/did/will provide (Probe for precise answers. Multiple responses allowed):

38. How many people (individual persons and/or families) directly benefit from the project? (If project is a cooperative, give the actual number of members):

Individuals		*Families*
Male	*Female*	

39. Define exact relationship between project and beneficiaries:
1. Do beneficiaries themselves own the project:
2. Are beneficiaries employed by project:
3. Are beneficiaries served by project (not owned by them):
4. Other relationship (specify):

N.B. In following questions, 40 to 48, if exact figures are not available, place before approximate numbers or percentages the plus-minus sign:

40. What is the occupation, i.e. major source of income, of the beneficiaries of the project or of their families?

	Number	*Percentage of Total*
1. Cultivating land owner:		
2. *Non-cultivating land owner:*		
3. Agricultural labourer:		
4. Industrial workers: a. skilled		
b. semi-skilled		
c. unskilled		
5. Self employed (i.e. own account) in trade, business or commerce:		
6. Employed in trade, business or commerce:		
7. In government or semi-government service:		
8. Teachers, professionals:		
9. Others (specify):		

41. If beneficieries are agricultural labourers, industrial workers or wage earners in general, classify them according to their monthly income in Rupees:

	Number	*Percentage of Total*
1. 1—50		
2. 51—100		
3. 101—200		
4. 201—300		
5. 301—400		
6. 401—500		
7. Above:		

42. If beneficieries are cultivators, classify them according to:

1. Their total family land-holding (if amount given in units other than acres, record verbatim and convert in acres later):

	Number	*Percentage of Total*
1. No land		
2. 1—3		
3. 4—6		
4. 7—10		
5. 11—15		
6. 16—20		

amounts at least for each major category of costs: recurring, non-recurring, etc.):

	Estimated cost (before project began)	*Actual cost*
1. Planning costs		
2. Land		
3. Building		
4. Furniture and/or equipment		
5. Other:		

53. If the project has undergone changes since it first started, list main stages of development, indicating exact or approximate cost:

54. Total recurring costs per year (Costs to be met on a continuous basis, to keep project in existence and operating):

	Estimated costs (before project began)	*Actual costs*
1. Salaries		
2. Maintenance and depreciation (building and equipment)		
3. Materials		
4. Transportation charges (including petrol of vehicles)		
5. Other:		

55. Sources of financing: How much of the total initial cost (to get the project set up and operating) came from (If figures given for contributions are only approximate, place before figure the plus-minus sign. Try to get exact contributions at least for each major source of financing. If neither the exact nor the approximate amounts are available, then indicate simply the sources. Give approximate cash value of contributions in kind, or specify nature and amount of contribution):

	Amount	*Percentage of Total*
1. Local sources		
1. Beneficiaries themselves:		
a. In cash as donation		
b. In cash as loan		
In kind: c. Land		
d. Labour		
e. Other:		
2. Sponsors (personal contribution):		
a. In cash		
b. In kind		
3. Other local sources:		
a. Private (specify):		

Amount Percentage of Total

b. Government

ther sources in India

Private (specify):
Government:

reign sources (specify)

a. In cash as donation
b. In cash as loan
In kind: c. Personnel
d. Equipment
e. Food for work
f. Other:

a. In cash as donation
b. In cash as loan
In kind: c. Personnel
d. Equipment
e. Food for work
f. Other:

ns were received, state repayment terms and conditions.

beneficiaries or the local people concerned contributed to cover itial cost of the project, do you feel their contribution was ade- given their resources?

Yes........ No........

adequate, do you feel they could have contributed more in cash kind or in both?

cash
kind
both

o was received from different sources, define relationship between if any:

o relationship at all (completely independent sources).
ne conditioned by the other (like, e.g. matching grant).
ne led to the other or one made possible the other.
ther relationships (specify):

side contribution was requested, was the project proposal examined ospective donor either directly or through an advisory agency?

irectly
hrough donor's advisory agency (specify which):
ot examined

61. If it was examined, were any significant changes suggested in the original proposal?

Yes........ No........

62. If Yes, (1) describe suggested changes and (2) specify whether they affected in any significant way the nature, size and location of the project?

1.
2.

63. In addition to all the sources of financing mentioned in question 55, was any additional financial aid received after project was first started?

Yes........ No........

64. If Yes, 1. Amount(s): a.
b.

2. Source (specify which): a.
b.

3. Date(s): a.
b.

4. Purpose: a. To cover initial deficit or unforeseen expenditure.
b. For further expansion.
c. To cover running expenses (specify which)
d. For other purposes:

65. If the project involves recurring expenses, how are they covered? (If neither the exact nor the approximate amounts are available indicate simply the sources):

	Amount	*Percentage of Total recurring*
1. Local contributions		
1. Contributions from beneficiaries		
a. In cash		
b. In kind		
2. Contribution from sponsors		
a. In cash		
b. In kind		
3. Other local contributions		
a. Private (specify):		
b. Government		
2. Contributions from other parts of India		
a. Private		
b. Government		

3. Foreign contributions (specify sources):

66. During its working or operating stage, does the project receive any other kind of assistance in the form of personnel, equipment, food supplies etc?

Yes........ No........

67. If Yes, specify (1) exact nature of assistance and (2) source:
1.
2.

68. If beneficiaries contribute to cover the running expenses of the project, do you feel their contribution is adequate given their resources?

Yes........ No........

69. If not adequate, do you feel they could contribute more in cash or in kind or in both?
1. In cash
2. In kind
3. In both.

70. After covering all its running expenses, does the project make any profits?

Yes........ No........ Don't know........

71. If Yes, how are these profits used? (Do not suggest answers. Probe for precise answers. Multiple responses allowed):
1.
2.
3.

72. As far as the financial administration of the project is concerned:
1. Is there any budgeting done at the beginning of the (financial) year?

   Yes........ No........

2. Are accounts kept in such a way that they could be audited?

   Yes........ No........

3. Is there any auditing of accounts?

   Yes........ No........

4. If yes,
   a. How often?
   b. By whom?

Remarks Regarding Part III

Part IV: Staff and Administration

73. If a permanent staff is required to administer and run the project, give details according to the following table:

Nature of staff	Number of Members									
	Total		Full-Time		Part-Time		Lay		Non-Lay	
	M.	F.	Paid	Vol.	Paid	Vol.	Ind. Born	For. Born	Ind. Born	For. Born
1. Direction										
2. Administration:										
a. Supervisory										
b. Clerical										
3. Technical or Professional										
4. Workers:										
a. Agricultural										
b. Industrial										
5. Menial										
6. Other:										

74. Do you feel the permanent staff is adequate?

Yes........ No........

75. If not adequate, (1) indicate categories of staff that need strengthening and (2) give reasons for shortage (Probe for precise answers. Multiple responses allowed):

1. Categories: a.
b.
c.
2. Reasons for shortage: a.
b.
c.

76. If the person now immediately responsible for running the project is not the same as when the project began, how many have preceded him/her on that job?

77. Do the beneficiaries or local lay people play any active role in the actual running of the project?

Yes........ No........

78. If Yes, in which capacity:

Capacity	*Number*
1. Directive	
2. Administrative: Supervisory	
Clerical	
3. Technical or professional	
4. Advisory only	

5. As manual workers: a. Agricultural
   b. Industrial
   c. Menial

6. Other (specify):

79. If beneficiaries or local lay people play a small or no responsible role in the management of the project, give the reasons for it? (Do not suggest answers. Probe for precise answers. Multiple responses allowed):

1.
2.
3.

80. If Beneficiaries or local lay people play a small or no responsible role in the management of the project, is anything being done to gradually increase their participation?

Yes........ No........

81. If No, give reasons:

1.
2.
3.

82. If Yes, describe measures actually being taken:

1.
2.
3.

83. Besides measures actually being taken, if any, what other measures would you suggest?

1.
2.
3.

84. Describe briefly how the project actually functions:

Remarks Regarding Part IV

Part V: Collaboration with Other Projects

85. Does the project constitute an entirely independent unit or is it part of, or closely connected with, another project?

1. Independent
2. Part of, or closely connected with, another project.

86. If the project is part of, or functionally connected with, another project, specify exact nature of relationship:

87. If part of, or closely connected with, another project specify the nautre of this other project and by whom it is managed:
1. Nature of project
2. Managing agency

88. Are there, in the area where your projects operates, any other projects of the same or similar type?
Yes........ No........ Don't know........

89. If Yes, specify name and nature of projects, their exact location, and whether they were started before or after yours:

Project	Location	Before	After
1.			
2.			
3.			

90. If there are in the area other similar projects, does your project make any specific contribution that the others do not make? If Yes, describe it?
Yes........ No........

91. If there are in the area other similar projects, do you feel there is any spirit of rivalry among them?
Yes........ No........

92. If Yes, (1) what are the reasons for it and (2) how does it manifest itself?
1.
2.

93. If contacts are maintained with other similar projects or agencies, define the frequency of contacts and the name and nature of the project or agency with which contacts are maintained:

Frequency of contacts	Project or Agency
1. Daily	
2. Weekly	
3. Monthly	
4. Less than monthly	
5. Non contacts at all	

94. If contacts with other projects imply any form of assistance, define nature of assistance, project or agency and whether assistance is given, received or mutual:

Nature of assistance	Project or Agency	Given	Received	Mutual
1. Information, consultation				
2. Equipment, materials				
3. Personnel				
4. Finances				
5. Other:				

95. In particular, if you have any contacts with the Block Development Officers and personnel, or with other government agencies related to your work, are these contacts:
    1. Very good
    2. Good
    3. Not so good
    4. Bad
    5. Does not apply

96. If contacts are not satisfactory, what are the reasons? (Do not suggest answers. Probe for precise answers. Multiple responses allowed):
    1.
    2.
    3.
    4. *Don't know*
    5. Does not apply

97. If contacts are maintained with the Block or with other government agencies, how were these contacts first established and who took the initiative for establishing them?

98. Do you feel the need for greater collaboration with the Block or with other government agencies related to your work:
    1. Block: Yes ..... No...... Does not apply......
    2. Other government agencies: Yes...... No...... Does not apply......

99. If Yes, suggest where and how in practice this collaboration could be fruitfully achieved (Do not suggest answers. Probe for precise answers. Multiple responses allowed):
    1.
    2.
    3.
    4. Don't know

100. Do you feel the need for greater collaboration with other private agencies or institutions busy with projects of the same or similar type?
    Yes........ No........

101. If Yes, specify agencies or institutions:
1.
2.
3.

102. If Yes, suggest where and how in practice this collaboration could be fruitfully achieved (Do not suggest answers. Probe for precise answers. Multiple responses allowed):

103. Do you feel the need for greater collaboration with government or private agencies or institutions engaged in activities of different nature, like, e.g. education and training, health?

Yes........ No........

104. If Yes, suggest where and how in practice this collaboration could be fruitfully achieved (Do not suggest answers. Probe for precise answers. Multiple responses allowed):

Remarks Regarding Part V

Part VI: Measure of Success

105. Do you consider the project:
1. Very successful
2. Successful
3. Not so successful
4. A failure
5. Don't know

106. If in any way successful, what are your reasons for considering it so? (Do not suggest answers. Probe for precise answers. Multiple responses allowed):

107. If in any way successful, to what do you attribute it? (Probe for multiple answers. Record them verbatim):
1.
2.
3.
4. Don't know

108. If not so successful or a failure, to what do you attribute it? (Probe for multiple answers. Record them verbatim):
1.
2.
3.
4. Don't know

109. Would you say that, because of the Project, the beneficiaries are now

better off economically?

Yes........ No........ Don't know........

110. Would you say that, because of the project, the beneficiaries are now better prepared to face life with less outside help?

Yes........ No........ Don't know........

111. If Yes, how does this concretely manifest itself in daily life?

112. If Yes, to what do you attribute it? (Do not suggest answers. If multiple responses given, record verbatim the two most important according to respondent):

1.
2.

113. If possible give concrete data and figures showing the progress of the project during the last five years? (Probe for precise data. If the project is a cooperative, see appendix):

114. Would you say that not only the direct beneficiaries but also the local community does/did benefit from the project?

Yes........ No........ Don't know ..... .

115. If Yes, explain how does/did it benefit? (Do not suggest answers. Multiple responses allowed):

1.
2.
3.

116. Has the project been instrumental in making other people or agencies in the region, undertake similar projects?

Yes........ No........ Don't know........

117. Has the project resulted into any permanent organization of the people to undertake similar tasks or solve similar difficulties in the future?

Yes....... No....... Don't know....... Does not apply.......

118. If that is/was the case, describe briefly the nature of this organization:

119. Was the project in any way evaluated after it started operating?

Yes........ No........

120. If Yes, describe briefly:

1. How was this evaluation done
2. How often
3. By whom

121. Are progress reports on the project regularly prepared or published?

Yes........ No........

Remarks Regarding Part I

Part II: Planning and Needs

5. List all the health services of the same type available within a radius of 50 miles :

Name	*Distance*	*Cathol*	*Non-Cath. Christian*	*Non-Christ. Private*	*Govern-ment*	*Year Started*
a.	......	......	....	....	......	......
b.	......	......	....	....	......	......
c.	......	......	....	....	......	......
d.	......	......	....	....	......	......

6. List all the health services of a different type available within a radius of 25 miles:

Name	*Type*	*Distance &*	*Cathol.*	*Non-Cath. Christian*	*Non-Christ. Private*	*Govern-ment*
a.	......	......	....	....	....	......
b.	......	......	....	....	....	......
c.	......	......	....	....	....	......
d.	......	......	....	....	....	......

7. From whom did the idea of starting the hospital originate ? (Probe for a precise answer):

8. What were the main reasons for starting the hospital? (Probe for precise answers. Multiple responses allowed. Record verbatim in order of importance):

   a.
   b.
   c.

9. Was any specific study done in the area before the hospital was set up?

   a. To appraise the health needs of the local people: Yes.. No ..
   b. To assess the existing health services in the area: Yes.. No ..
   c. To study the activities of similar projects elsewhere: Yes.. No ..
   d. Other (specify) :

10. If Yes, (a) give briefly the details of the study :
    (b) specify who conducted the study:

11. State the major factors that determined the nature, size and location of the hospital :

    a. Nature
    b. Size
    c. Location

12. Before the hospital was set up, did you find out whether there was any government plan for the establishment of health service in the area?
Yes.... No....

13. If there was any such plan, give details:

14. Were the local people aware of the need for the hospital?
Yes.... No....

15. Were they aware of the plans for starting the hospital?
Yes.... No....

16. Did they contribute in any way to the planning and the setting up of the hospital?
Yes.... No. ..

If Yes, describe how:

17. Were they informed of the plan for the hospital?
Yes.... No. ..

If Yes, describe how:
If No, give reasons:

18. Were they approached for any kind of help in the setting up of the hospital?
Yes.... No ...

If Yes, specify:
If No, give reasons:

19. Who participated in the actual planning of the hospital set-up?
    a. Local representatives
    b. Experts
    c. Religious leaders
    d. Other (specify):

20. How long did it take to set up the hospital?
    a. From the time it was first conceived until it started functioning:
    b. From the time the necessary funds became available until it started functioning:

21. Do the original needs which led to the foundation of the hospital still exist?
Yes.... No....

22. If No, state reasons:

2. *Other indigenous sources*

Contributions (or sources) from other parts of India

1. Private (specify)
2. Government:

3. *Foreign sources* (specify)

a. In cash:
b. In kind :

36. If the hospital has undergone major changes since its inception, e.g. new building, new services, new equipments, etc. list these stages of development with dates, costs and sources of financing:

Stages of development	*Date*	*Expenditure*	*Source of financing*

37. Give details of annual expenditure: recurring :

	Actual (in Rupees)	*Percentage*
a. Maintenance & depreciation (Building and equipment)	....	....
b. Salaries	....	....
c. Medicines	....	....
d. Supplies	....	....
e. Miscellaneous	....	....
Total:	....	....

38. If these allotments are inadequate, state in which items:

39. If inadequate, to what extent do these inadequacies jeopardise the functioning of the hospital?

40. What steps have been or are being taken to overcome these inadequacies?

41. Indicate sources of income for recurring costs, the actual amount and percentage from each sources:

	Amount (in Rupees)	*Percentage*

1. *Local sources*

a. Beneficiaries
b. Sponsors (Personal contributions)
c. Other — Private
Government

2. *Other indigenous sources*

   a. Private (specify):
   b. Government

3. *Foreign sources* (specify)

42. What are the sources of medical supplies for the hospital?

43. State major difficulties, if any, in the procurement of these supplies :

Remarks Regarding Part IV

Part V: Services:

44. Which of the following hospital facilities are available here? Check if present :

Administration
Ambulance service
Anaesthesia
Central supply (Inclu. sterilization)
Emergency (casualty)
Family planning
General medicine
General surgery
House keeping (inclu: linen & laundry)
Isolation units
Kitchen (inclu. dietary)
Laboratory:
a) Clinical
b) Anatomical
c) Blood Bank
Other: (specify):
Maintenance Dept.
Maternity
Medical library
Medical records
Mobile unit
Nursing service
Obstetrical delivery room
Operation theatre
Out-patient Dept.
Paediatrics
Pharmacy
Physical therapy
Power supply
Public health
Public relations
Social work
Water supply
X-ray unit

45. If there is a mobile unit, is it part of the public health programme of the hospital?
    Yes.... No....

46. If No, give details of :
    a. Nature of service rendered
    b. Beneficiaries served
    c. Personnel involved

47. If there is a family planning clinic, give details of :
    a. Nature of service rendered
    b. Beneficiaries served
    c. Personnel involved

48. Which of the following amenities are provided here? Check if present:

a. For Patients :— lobbies and waiting rooms
information services
library service
radio
mailing facilities
toilets
cooking facilities/stay for relatives

b. For staff :— lounges, dressing rooms
toilets
canteen
sleeping rooms for personnel "on call"
living quarters.

49. For which services is the hospital best known?
State in order of importance:
a. ....; b. ....; c. ....

50. Which services require further development?
State in order of importance :
a. ....; b. ....; c. ....

51. Are there plans for starting new services? If Yes, specify:

52. Give details of in-service training programmes, if any, sponsored by the hospital.

Remarks Regarding Part V

Part VI: Staff and Administration

53. What is the strength of the permanent staff? Give details of their qualification, experience, sex and religious-cultural background as indicated in the attached sheet:

54. Are the various departments adequately staffed?
Yes.... No ....

55. If No, in which departments is the shortage felt?

56. What category of personnel needs strengthening: medical, para-medical, administrative or subordinate?

57. What are the reasons for shortage? (Probe for precise answers. Multiple responses allowed:)

58. In the selection of personnel are there any special considerations given to certain social and/or religious groups?
Yes.... No ....

59. If Yes, give details

60. What are the functions of the Administrative Council or the Board of Directors?

61. State the following personal data of each member of the Council or Board :

Status or designation	*Male/ Female*	*Religious/ Lay*	*Indian born Tribal*	*Non-Tri.*	*Elected/ nominated*	*Term of office*
Chairman						
Vice-Chair.						
Secretary						
Treasurer						
Members: 1						
2						
3						
4						
5						

62. If there are any research/action programmes undertaken by the hospital give details below :

Programme	*Objectives*	*Period*	*Details of extra personnel*	*Collaborating Agency, if any*

Remarks (Note on the progress so far made or outcome) specify :

63. Is there a Chaplain for the hospital? Yes.... No....

64. If Yes, give the following details :
   a. Age:
   b. Whether full time or part-time:
   c. If part-time, state his other assignment:
   d. Whether resident within the campus:
   e. If not, state distance from his residence:
   f. What is his daily routine/weekly routine.

Remarks Regarding Part VI

Part VII: Beneficiaries

65. Give the following particulars :
   a. Bed strength :

Medical		*Surgical*		*Maternity*	*Paediatrics*	*Isolation*	*Total*
Male	Female	Male	Female				

b. Average duration of a patient's stay in bed:
c. Percentage of bed occupancy:

66. How many patients are treated here every year? Specify for the past five years :

Patients	*Number treated*				
	1961	1962	1963	1964	1965
In-patients (Excluding Maternity cases)					
Out-patients					
Maternity cases					
Surgical cases :					
a. Major					
b. Minor					

67. Indicate the months of the highest census (H) and the lowest census (L) for the past five years :

Patients		*Months*				
		1961	1962	1963	1964	1965
In-patients (Excluding Maternity cases)	H					
	L					
Out-patients	H					
	L					
Maternity cases	H					
	L					
Surgical cases	H					
	L					

68. Out of the daily out-patient attendance, what is the percentage of new cases?

69. Indicate the type and number of terminations carried out in the hospital for the past five years :

Type	*No. of terminations*				
	1961	1962	1963	1964	1965
Normal deliveries					
Deliveries with complications					

70. List the common types of diseases (excluding nutritional disorders) treated here indicating the incidence, then months of the highest census and the lowest census in each type :

Type	*Incidence*	*Highest Census*	*Lowest Census*

71. Indicate the incidence of nutritional disorders treated here
   a. *Calorie-protein malnutrition*
      Kwashiorkor:
      Marasmus:
      Hypoproteinaemia:
   b. *Vitamin-Mineral salts deficiency*
      Avitaminosis:
      Beri-beri:
      Anaemia:
      Rickets:
      Osteomalacia:
      Goitre:

72. What are the common types of patients referred here by other agencies?

73. Out of the total in-patient admissions, state the average number of deaths per year :

	Number of deaths	
	Under 48 hours of admission	*After 48 hours of admission*
a. Adults		
b. Infants		

74. *List the major causes of death observed here, indicating the annual* rate of occurrence in each :

Cause of death	*Number*	*Percentage*

75. What percentage of patients come from :
   a. The place where the hospital is located:
   b. Places around this hospital (25 miles radius):
   c. Far-off places within this district (over 25 miles radius):
   d. Outside the district:

76. What percentage are :
   a. Agricultural workers:
      Landowners:
      Labourers:
   b. Industrial workers:
   c. Professionals:
   d. Businessmen:
   e. Other:

77. What percentage belong to the following income groups:
   a. Below Rs. 100:
   b. Rs. 101 — 300:
   c. Above Rs. 300:

78. What percentage are :
   a. Hindus:
   b. Muslims :
   c. Christians :
      Catholics:
      Non-Catholics :
   d. Other :

79. What percentage are :
   a. Tribals :
   b. Non-tribals :

80. Do you charge your patients for the services? Yes.... No....

81. If Yes, give details of fees collected:

a. Out-patient charges:	Registration
b. In-patient charges:	General
	Special
c. Operation charges:	Major
	Minor
d. Maternity fees:	
e. Food rates:	

82. Are there any concessions for certain groups? Give particulars :

83. What is the approximate value of free care afforded by the hospital?

84. How do you handle the following cases?
   1. The chronically ill :
   2. The wayward destitute :
   3. The unmarried mother :
   4. The abandoned child:
   5. The unclaimed body :

Remarks Regarding Part VII

Part VIII: Measure of Success

85. Do you consider the hospital :
   a. Very successful
   b. Successful
   c. Not so successful
   d. A failure
   e. Don't know.

STAFF DATA SHEET

S. No.	Designation	Qualification	Experience (in years)	Male			Female			Indian Born	
				Christian		Non-Christian	Christian		Non-Christian	Tribal	Non-tribal
				Lay	Non-Lay		Lay	Non-Lay			
		Total:									

STAFF DATA SHEET

S. No.	Designation	Qualification	Experience (in years)	Male			Female			Indian Born	
				Christian		Non-Christian	Christian		Non-Christian	Tribal	Non-tribal
				Lay	Non-Lay		Lay	Non-Lay			

86. If in any way successful, give main reasons for it : (Multiple responses allowed. Record verbatim)' :

87. If not so successful, or a failure, give main reasons for it : (Multiple responses allowed. Record verbatim):

88. What do you consider are the main achievements of the hospital from the time of its inception?

89. List some improvements in the area, which you would attribute to the activities of the hospital:

Remarks Regarding Part VIII

Part IX: Problems and Suggestions

90 a. List your main problems in the administration of health, in the order of importance:
   b. Suggest specific measures to overcome them:

Remarks Regarding Part IX

Interviewer: ——————————

Person interviewed: ——————

Duration of interview: ——————

Date:——————

12. Sayal D. Colliery Hospital, *Sayal.*
13. Subdivisional Hospital, *Giridih.*
14. Subdivisional Hospital, *Chatra.*
15. Subdivisional Hospital, *Kodarma.*
16. Tisri Hospital, *Tisri.*

B. Special Hospitals

1. Police Hospital, *Hazaribagh.*
2. P.T.C. Hospital, *Hazaribagh.*
3. Ramgarh Cantt. Hospital, *Ramgarh.*

II. Catholic Hospitals

A. General Hospitals

Holy Family Hospital, *Kodarma.*

B. Special Hospitals

None.

III. Other Christian Hospitals

A. General Hospitals

St. Columba's Hospital, *Hazaribagh.*

B. Special Hospitals

None.

IV. Other Private Hospitals

A. General Hospitals

1. Chrestien Mica Hospital, *Domchach.*
2. E.R.D.B. Jain Colliery Hospital, *Bokaro,*
3. Jaridih Colliery Hospital, *Jaridih.*
4. Pachanba Hospital, *Giridih.*
5. Sikra Colliery Hospital, *Argada.*
6. Swang Colliery Hospital, *Gauria.*

B. Special Hospitals

None.

PALAMAU DISTRICT

I. Government Hospitals

A. General Hospitals

1. Railway Hospital, *Barwadih.*
2. Sadar Hospital, *Daltonganj.*

3. Subdivisional Hospital, *Latehar.*
4. Subdivisional Hospital, *Garhwa.*

B. Special Hospitals

Police Hospital, *Daltonganj.*

II. Catholic Hospitals

A. General Hospitals

None.

B. Special Hospitals

None.

III. Other Christian Hospitals

A. General Hospitals

Nava Jivan Mennonite Hospital, *Satbarwa.*

B. Special Hospitals

None.

IV. Other Private Hospitals

A. General Hospitals

1. Japla Cement Factory Hospital, *Japla.*
2. Khalari Cement Works Hospital, *Khalari.*

B. Special Hospitals

None.

DHANBAD DISTRICT

I. Government Hospitals

A. General Hospitals

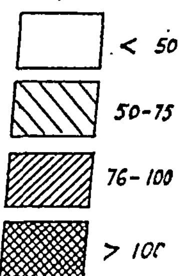
1. Central Hospital, Jagjiwan Nagar, *Dhanbad.*
2. Fertilizer Corp. of India Hospital, *Sindri.*
3. Regional Hospital, *Katras.*
4. Sadar Hospital, *Dhanbad.*

B. Special Hospitals

1. Police Hospital, *Dhanbad.*
2. B.M.P. Hospital, *Gobindpur.*

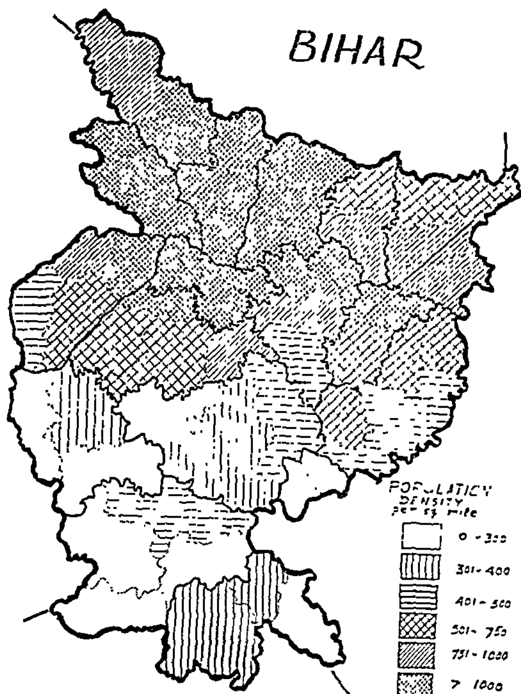
BIHAR

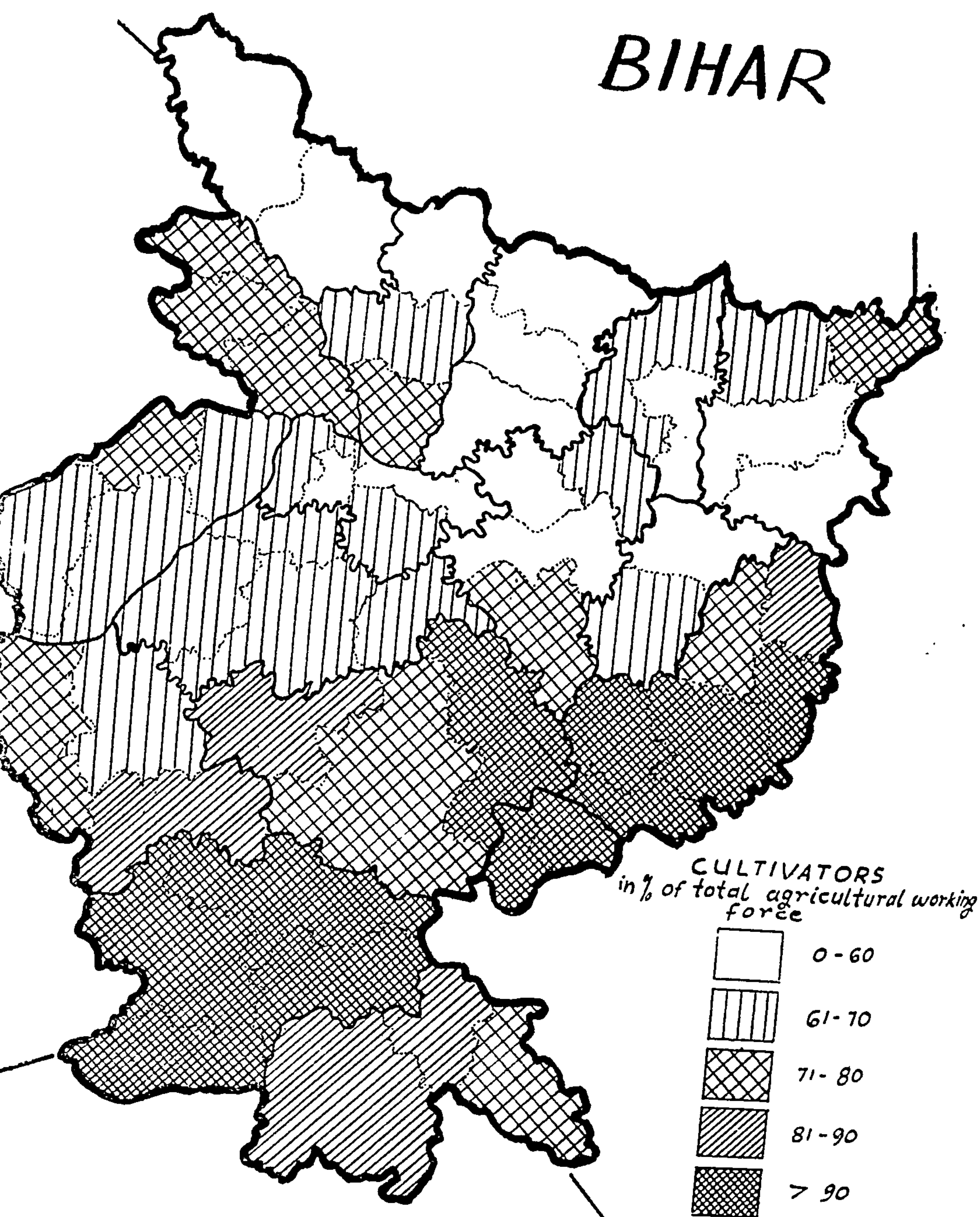
POPULATION GROWTH
PERCENTAGE VARIATION



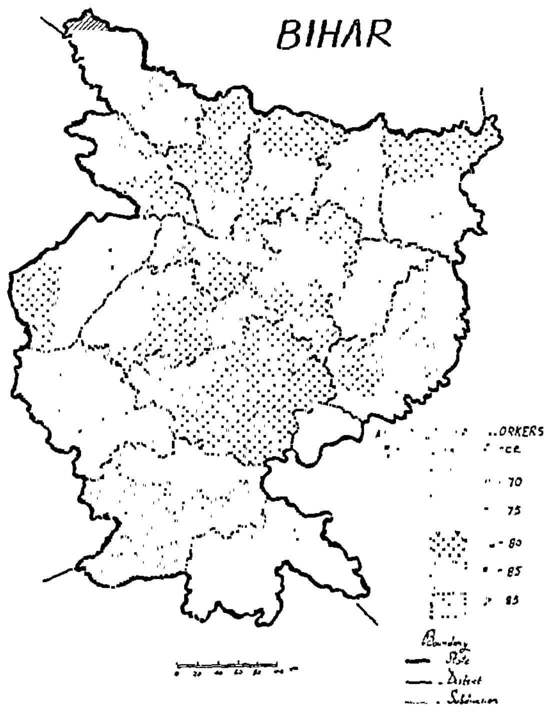
0 20 40 60 80 100 km

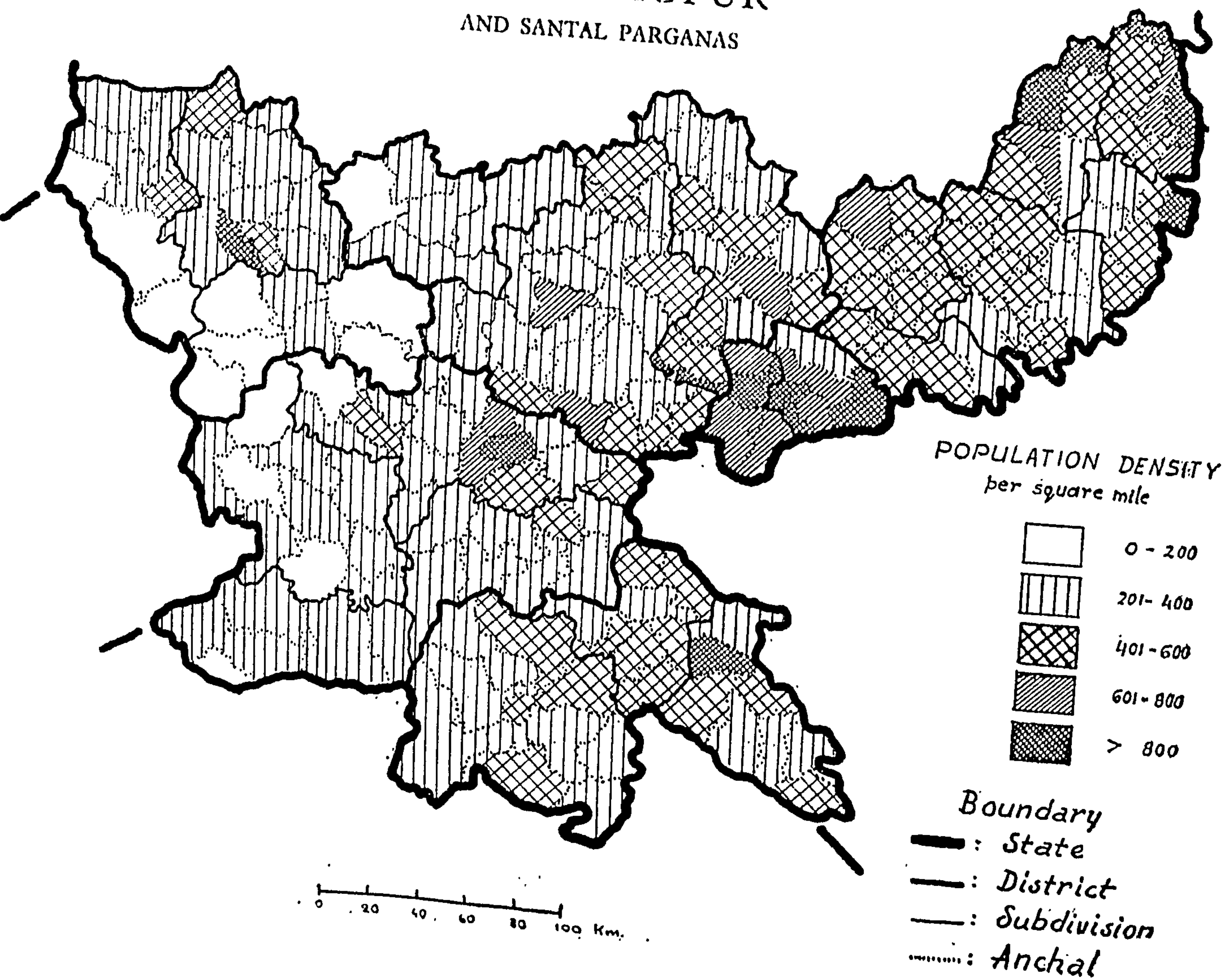
Boundary
. State
. District
. Subdivision

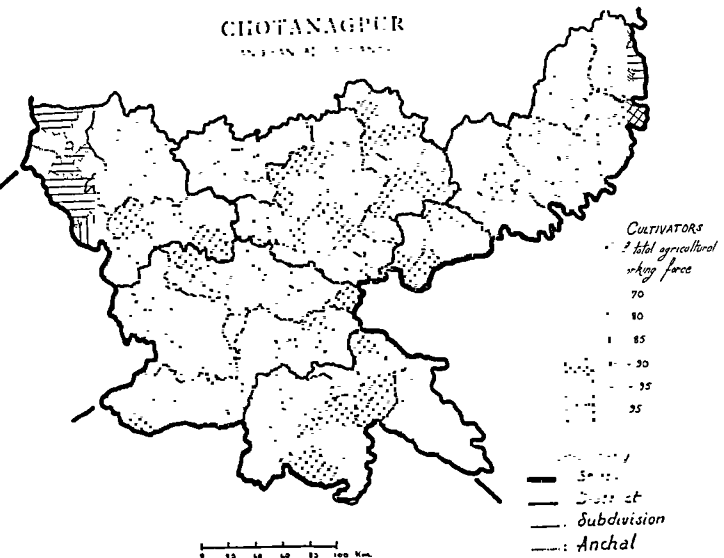

BIHAR
POPULATION
DENSITY
per sq mile
0 - 300
301 - 400
401 - 500
501 - 750
751 - 1000
> 1000
Boundary
State
District
Subdivision
0 20 40 60 80 100

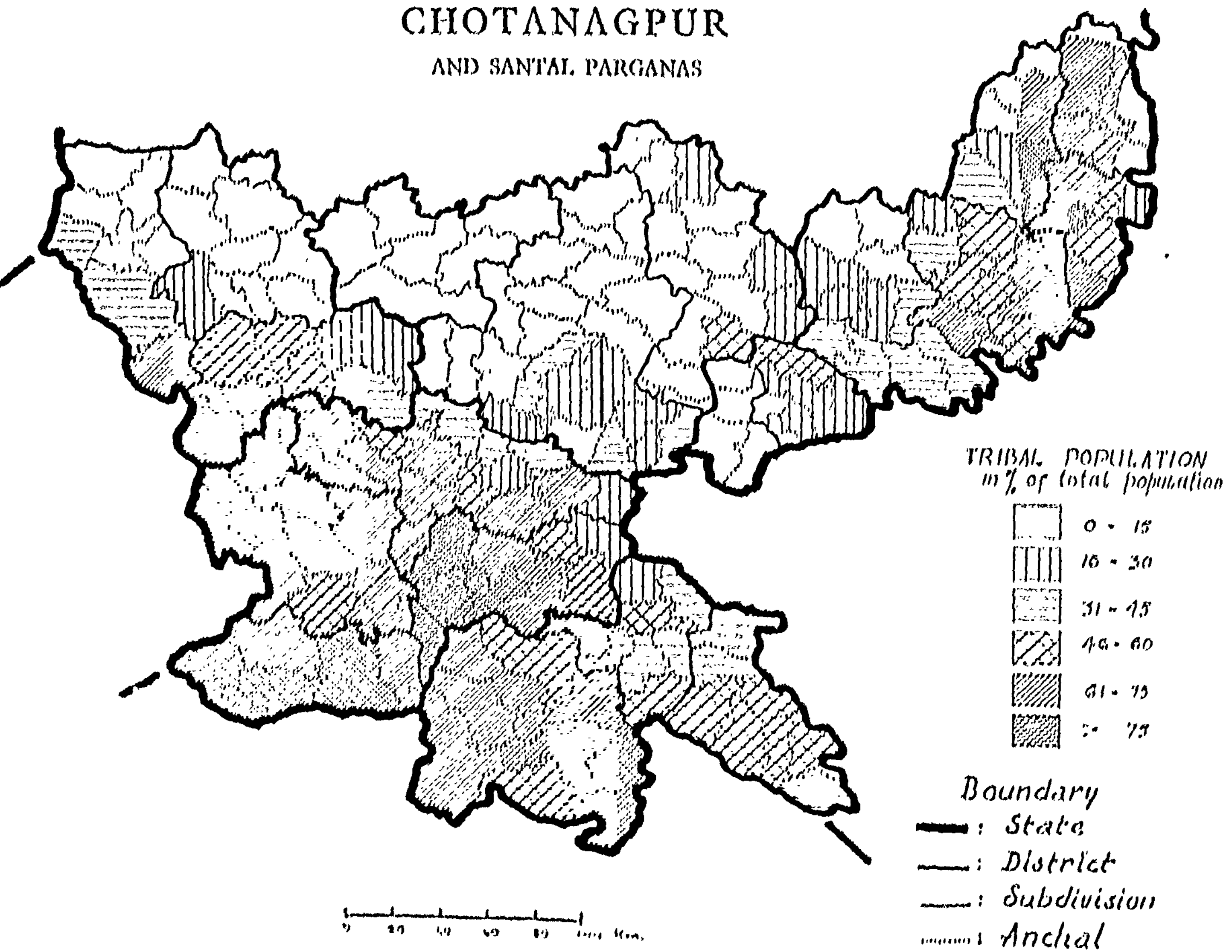


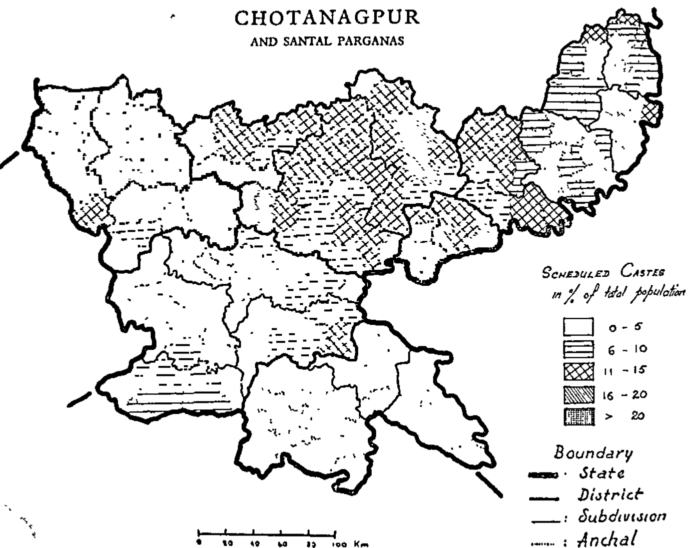
BIHAR
CULTIVATORS
in % of total agricultural working force
0 - 60
61 - 70
71 - 80
81 - 90
> 90
0 20 40 60 80 100 km
Boundary
. State
. District
. Subdivision

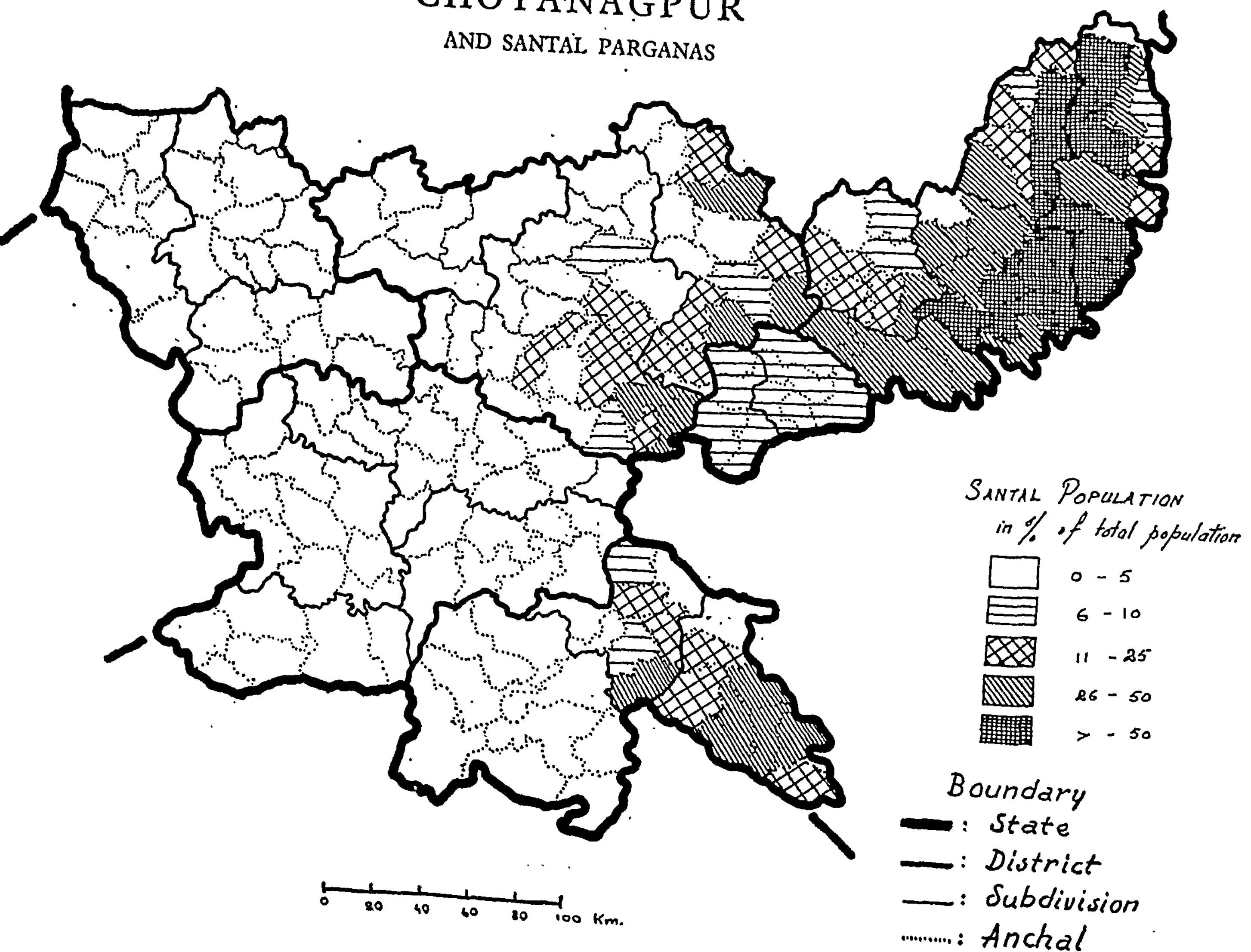

BIHAR
70
75
80
85
85


CHOTANAGPUR
AND SANTAL PARGANAS
POPULATION DENSITY
per square mile
0 - 200
201- 400
401-600
601-800
> 800
Boundary
: State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km.

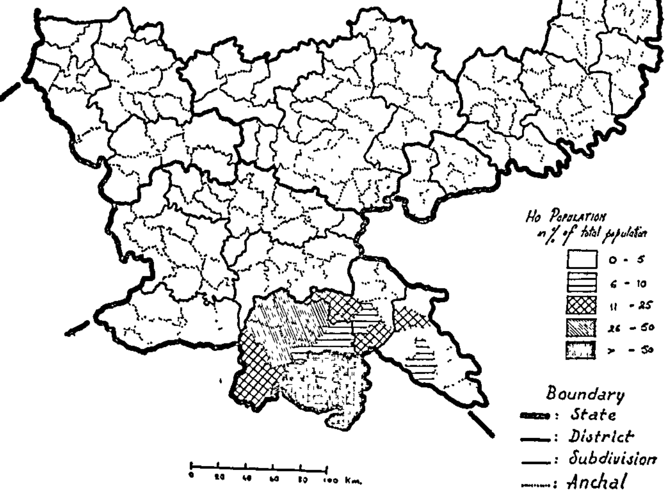

CHOTANAGPUR
CULTIVATORS
% total agricultural working force
70
80
85
90
95
95
Subdivision
Anchal
0
100 Km.

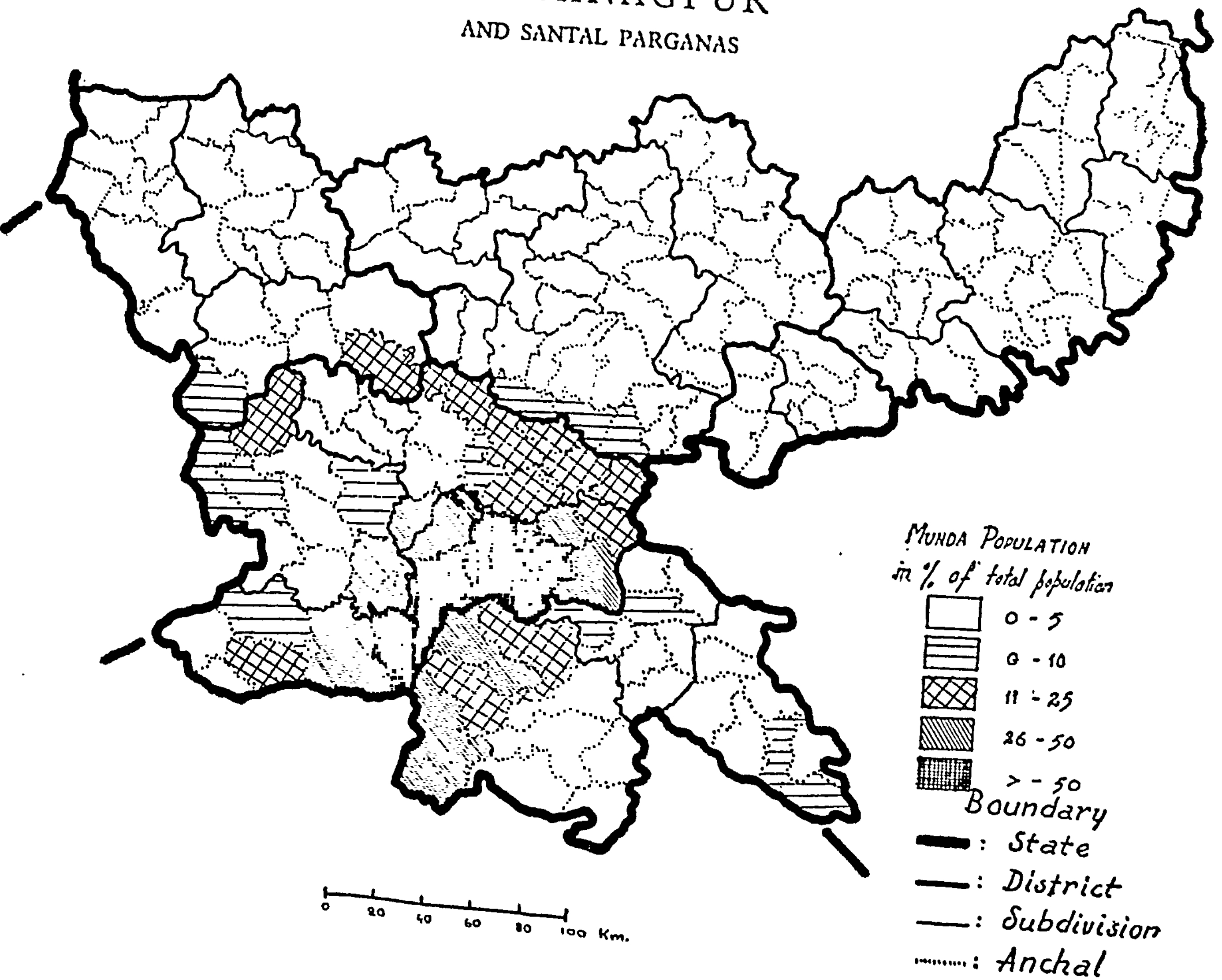

CHOTANAGPUR
AND SANTAL PARGANAS
TRIBAL POPULATION
in % of total population
0 - 15
16 - 30
31 - 45
46 - 60
61 - 75
Boundary
: State
: District
: Subdivision
: Anchal


CHOTANAGPUR
AND SANTAL PARGANAS
Scheduled Castes
in % of total population
0 - 5
6 - 10
11 - 15
16 - 20
> 20
Boundary
: State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km

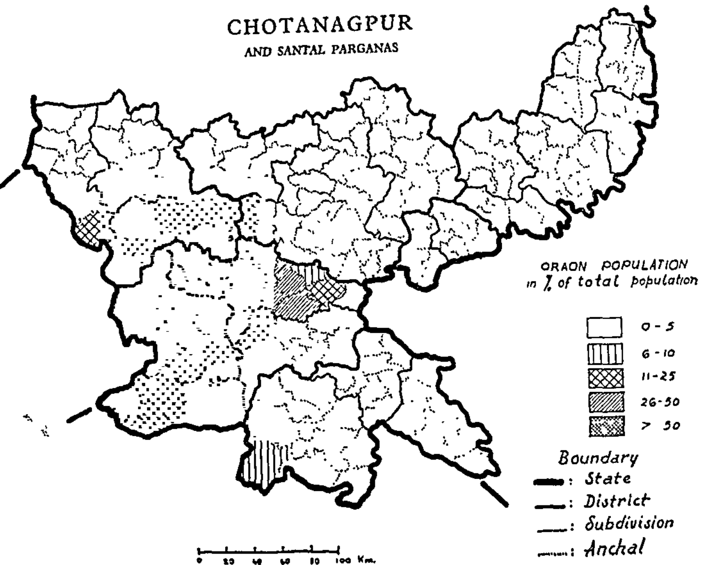


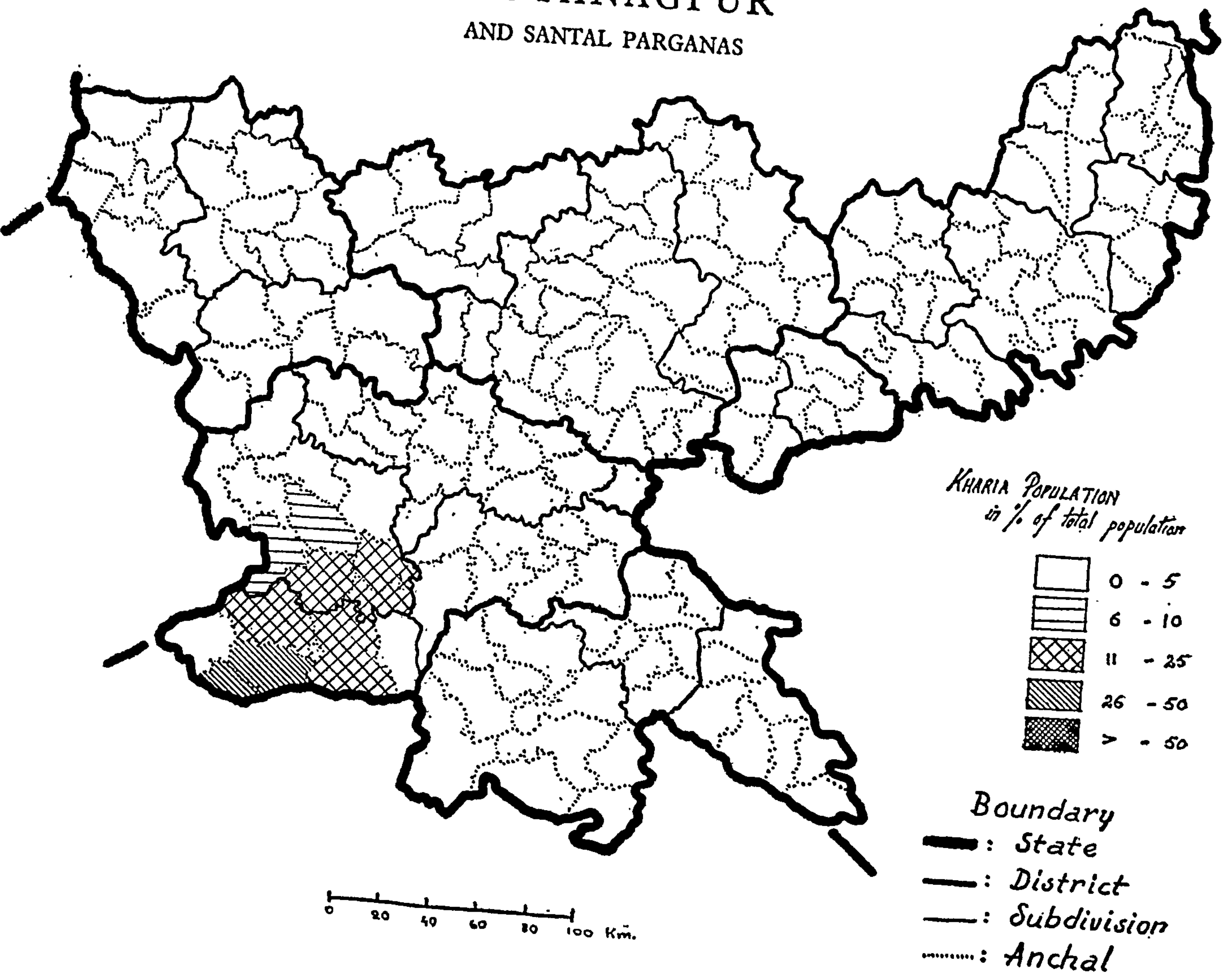
CHOTANAGPUR
AND SANTAL PARGANAS
SANTAL POPULATION
in % of total population
0 - 5
6 - 10
11 - 25
26 - 50
> - 50
Boundary
: State
: District
: Subdivision
: Anchal
0
20
40
60
80
100 Km.

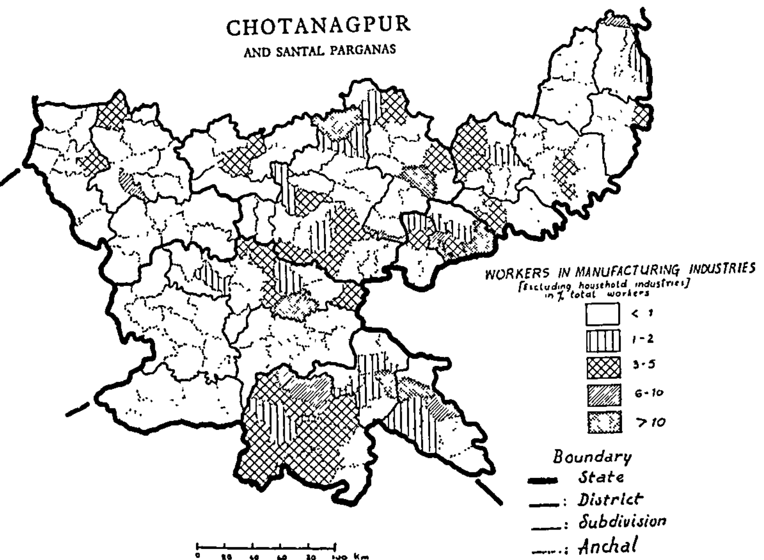

CHOTANAGPUR
AND SANTAL PARGANAS
Ho Population
in % of total population
0 - 5
6 - 10
11 - 25
26 - 50
> - 50
Boundary
: State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km.

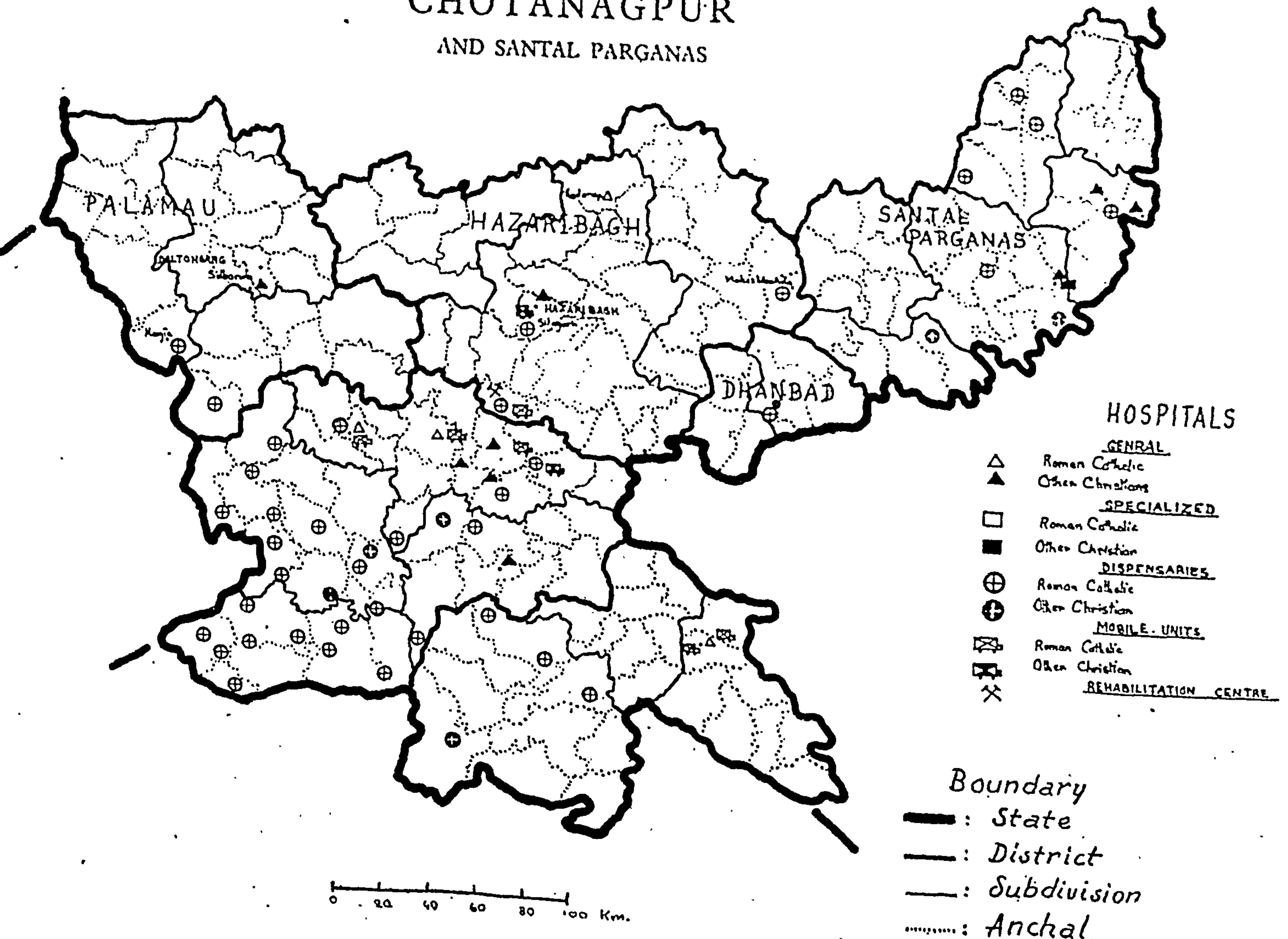

CHOTANAGPUR
AND SANTAL PARGANAS
MUNDA POPULATION
in % of total population
0 - 5
0 - 10
11 - 25
26 - 50
> - 50
Boundary
: State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km.

CHOTANAGPUR
AND SANTAL PARGANAS

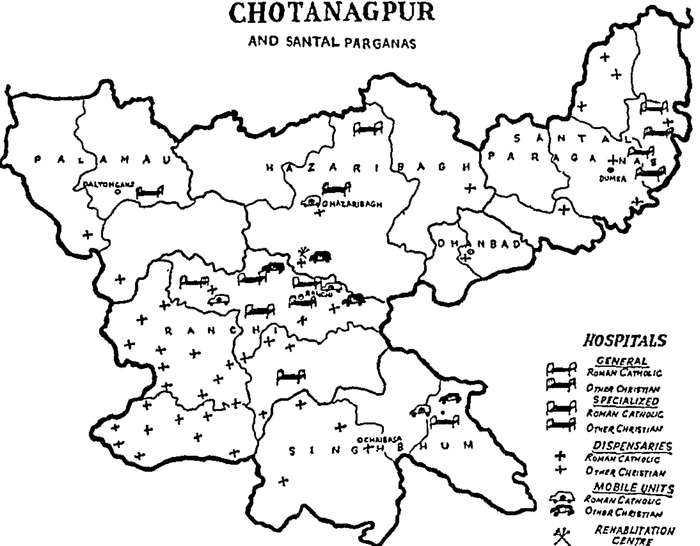



CHOTANAGPUR
AND SANTAL PARGANAS
KHARIA POPULATION
in % of total population
0 - 5
6 - 10
11 - 25
26 - 50
> - 50
Boundary
: State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km.


CHOTANAGPUR
AND SANTAL PARGANAS
WORKERS IN MANUFACTURING INDUSTRIES
[Excluding household industries]
in % total workers
< 1
1-2
3-5
6-10
> 10
Boundary
State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km



CHOTANAGPUR
AND SANTAL PARGANAS
PALAMAU
HAZARIBAGH
SANTAL PARGANAS
DHANBAD
DALTONGANJ
HAZARIBAGH
HOSPITALS
GENRAL
Roman Catholic
Other Christians
SPECIALIZED
Roman Catholic
Other Christian
DISPENSARIES
Roman Catholic
Other Christian
MOBILE. UNITS
Roman Catholic
Other Christian
REHABILITATION CENTRE
Boundary
: State
: District
: Subdivision
: Anchal
0 20 40 60 80 100 Km.



CHOTANAGPUR
AND SANTAL PARGANAS
PALAMAU
DALTONGANJ
HAZARIBAGH
HAZARIBAGH
SANTAL PARGANAS
DUMKA
DHANBAD
RANCHI
RANCHI
SINGHBHUM
CHAIBASA
HOSPITALS
GENERAL
ROMAN CATHOLIC
OTHER CHRISTIAN
SPECIALIZED
ROMAN CATHOLIC
OTHER CHRISTIAN
DISPENSARIES
ROMAN CATHOLIC
OTHER CHRISTIAN
MOBILE UNITS
ROMAN CATHOLIC
OTHER CHRISTIAN
REHABLITATION CENTRE